THE

Chicago Medical Journal

AND

EXAMINER.

VOL. XXXV.—OCTOBER, 1877.—No. 4.

Original Communications.

THE RESPIRATION OF COMPRESSED AND RAREFIED AIR IN PULMONARY DISEASES.

BY F. H. DAVIS, M.D., Chicago.

(A Paper Read before the Chicago Society of Physicians and Surgeons, April, 1877.)

The application of compressed and rarefied air to the treatment of certain pulmonary and cardiac diseases, has been the subject of considerable study and experimentation during the past few years, especially in Germany.

The results of these observations and experiments have been given to the profession through the writings of Waldenberg, Fränkel and others, and in the original or through translations have attracted some attention in this country. Cohen, in the new edition of his treatise on "Inhalations," devotes a chapter to this subject, giving a very good summary of the effects to be derived from the inhalation of compressed and rarefied air, illustrated by the various apparatus devised for its practice, etc.

For stationary and office use the apparatus of Waldenberg has been the most efficient and convenient. It consists of an

ordinary gasometer of sufficient size so that from 40 to 60 breaths would be required to empty it. The size, however, is immaterial, except as a matter of convenience. By raising the gasometer full of air and placing weights upon it, any desired pressure can be obtained; or attaching the weights upon the cords running over the pulleys, when the tank is depressed and emptied of air, the suction power or rarefied air is obtained. The addition of a manometer or gage to record the amount of pressure or suction obtained, is useful only for the purpose of scientific experimentations and record.

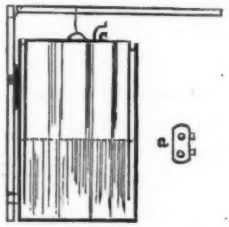
The lungs are very sensitive to pressure or suction, and will tolerate an increase or diminution of pressure of not more than from $\frac{1}{60}$ or $\frac{1}{70}$ to $\frac{1}{30}$ or $\frac{1}{40}$ of an atmosphere. The feelings of the patient are a sufficiently safe guide however, and he will naturally withdraw the tube from the mouth if the pressure becomes too great.

One thing has been lacking in order to popularize this mode of treatment and render it practically valuable. This has been a cheap, transportable apparatus, capable of being easily extemporized or manufactured whenever and wherever wanted. Patients must in many instances be enabled to follow out the treatment at their own houses where they can use it for a short time several times through the day.

One form of apparatus, Fränkel's, partially answers this purpose, in that it is not very expensive and is transportable. This is in the form of an accordeon-bellows, and held in the patient's lap, is worked by the hands. The mode of using it, however, requires considerable manual power, and is consequently tiring to the patient. The bellows are not durable, and if used for a number of different patients are liable to become contaminated by the absorption of the exhaled matters of the breath by the leather. A metal apparatus, as being readily washed and cleansed and also more durable, is preferable.

After some experimenting, I have devised the instrument shown in the accompanying cut to meet the requirements of many patients, and have now several of them in use. It consists essentially of a small metal gasometer, 15 in. in diameter

by 24 in. in height. It is best made of galvanized iron, which will not rust. Two bands are soldered on to the side of the tank, into which a piece of wood is slid, reaching 12 inches above the top of the tank. To this, as a fulcrum, is hinged a wooden lever, two feet long, attached to a handle in



the middle of the inner tank. A very slight exertion on the part of the patient, raising or lowering this lever, produces all the pressure or suction necessary.

This apparatus can be made by any tin-smith, and with three feet of three-quarter in. rubber-hose, costs from four to five dollars. In this, as in all the other forms of apparatus that have been devised, the patient inspires the compressed air, and expires into the ordinary atmosphere; or, *vice versa*, expires into rarified air, and inspires again the ordinary atmosphere.

Believing that, in many instances, still more marked results could be obtained by combining the two acts of inspiration of compressed air and expiration into rarified air, I had made for use in my office an apparatus, consisting of two small gasometers, as just described, placed side by side, and so arranged that one lever would raise or depress the two at once. Tubes from each gasometer pass to a double mouth-piece, so that as the lever is raised the patient expires into the one, the other being at the same time raised full of fresh air; he then inspires this fresh air as the lever is depressed, the foul air at the same time emptying itself from the first tank. Using two separate tanks, the one always to expire into, the other to inspire from, there is no possible danger of contamination of the water or walls of the gasometer used for inhalation. The

simplest form of mouth-piece for this double apparatus is that shown in *figure a.* Two tin tubes are connected by a tin plate, four inches by two and one-half. This tin plate should be covered with a cloth or leather pad, which coming under the nose will prevent the current of air from passing that way. The mouth is simply changed from one tube to the other with the act of inspiration or expiration.

I have rendered my office-apparatus now quite perfect by the addition of a three-way sliding valve attached to the lever, which changes the current from one tank to the other, the patient thus inspiring and expiring from the one mouth-piece. I have also attached a light gauge, somewhat after the form of a steam-gauge, which shows the exact amount of pressure or suction used.

As thus completed, the apparatus would cost to have manufactured from fifteen to twenty dollars.

These apparatuses claim nothing new in principle, but are offered merely as suggestions to physicians who may have suitable cases for which they would like to extemporize an apparatus, or who wish to have a cheap apparatus for trial and use in their offices. The same apparatus will answer an excellent purpose for artificial respiration in cases of asphyxia, or in vivisections and physiological experiments upon animals.

In regard to the mode of action of this compressed or rarified air upon the respiration or circulation, I would quote the following epitomization from the chapter before alluded to in Cohen on Inhalation.

Inspiration of compressed air increases the pressure on the lungs, and thus augments the vital capacity ; the chest becoming expanded to a greater extent than can be accomplished by the most powerful voluntary inspiration of normal air. As a matter of course, there is a consequent pressure exerted on all the organs in contact with the lungs, and on all the contents of the thorax. The action of the heart is increased, and the pressure in the arteries augmented, so that the arterial walls are distended, and the pulse becomes full and hard. The afflux of venous blood to the right auricle is impossible, and the blood accumulates in the arterial system, the pulse becom-

ing lowered in frequence from four to ten beats in the minute.

Expiration into compressed air diminishes the quantity of expired air in proportion to the density of the compressed air. The interchange of gases is impeded, and if pushed to excess, it will induce apnœa. It will strengthen the power of the auxiliary muscles of expiration. The effects on the circulation are similar to that of the inspiration of compressed air, but in a greater proportionate degree.

Inspiration of rarefied air diminishes the actual amount of air inspired, and if pushed to excess renders inspiration difficult, and produces apnœa. It strengthens the auxiliary muscles of inspiration. Its action in the circulation is just the opposite of the effect of inspiration of condensed air. The intrathoracic pressure is diminished, and its physical influence is exerted upon all the organs within the thorax. The heart's action is improved and marked, and the pressure in the arterial system diminishes; the pulse becomes soft, thin, compressible, and more frequent. The afflux of venous blood to the right auricle is facilitated, and blood accumulates in the pulmonary circulation, and diminishes in the general circulation. Pushed to excess it may induce hæmoptysis. Expiration into rarefied air increases the amount of air expelled from the lungs, and the lung contracts to a greater degree than it does under the most powerful effort of normal expiration. A greater proportion of carbonic acid gas is therefore given off, and the succeeding inspiration is the more powerful and effective. It thus tends to decrease the volume of emphysematous lungs, and to increase the vital capacity of the lungs. The respiratory power is increased in both its acts. It affects the circulatory apparatus similarly, to the inspiration of rarefied air, but in a much less degree. The pressure is diminished in the arterial system, and the pulse becomes soft, compressible, small and more frequent. Blood accumulates in the intrathoracic organs, and diminishes in the remaining portions of the body.

My own experience in the application of this form of treatment covers but a brief period and a limited number of cases. These cases may be grouped and the results summarized as follows:

First, a class of young persons, varying in age from twelve to twenty, of slight physique and slim build. Chests flat and narrow, and generally a tendency to a stooping of the shoulders, and a deficient expansion of the chest in respiration; also a natural disinclination to active out-door exercise and sports. This assembly of symptoms, accompanied by a sensitive condition of the air passages, caused frequent attacks of laryngeal and bronchial catarrh. Physical examination, however, revealed no evidence of tubercular deposits. In about one-half of these cases, however, the family history revealed tubercular or scrofulous taint.

The inhalation of compressed air for from five to ten minutes, once or twice a day, produced marked and rapid improvement in all these cases.

The size of the chest, on full inspiration was increased from one-half inch to one inch in the first month, and a habit of fuller, deeper breathing and a more erect carriage was established. Under the use, at the same time, of some efficient nutrient tonic, as malt extract, in combination with the hypophosphites or cod-liver oil, the general nutrition and flesh was improved, and the sensitiveness to cold and catarrhal attacks was diminished.

A second group of cases comprise those diagnosticated as incipient or primary tuberculosis.

The diagnosis was founded on about the following assemblage of symptoms: A more or less rapid loss of flesh and strength. Impaired appetite and digestion. Some shortness of breath on exercise, and perhaps slight pains in the chest, referable more particularly to the infraclavicular and interscapular regions of one side. Generally slight hacking cough, and expectoration, if any, slight and of an ordinary catarrhal mucous character. Chest, on inspiration, generally rather flat and narrow, and spare of flesh. Rather harsh bronchial respiration, prolonged expiration, and some degree of bronchophony apparent in the superior portion of one lung on auscultation. More or less marked dullness on percussion on same side.

In this assemblage all, or a majority of the symptoms were apparent in all the cases of this group.

The inhalation of compressed air was combined, in some of these cases, with the exhalation into rarefied air. The same tonic constitutional treatment was also pursued. The results of treatment in this group of cases were evidently influenced very materially by the course and origin of the disease.

A person of naturally healthy constitution, and giving no family history of tuberculosis, but following a sedentary, confined or unhealthy occupation, is attacked with a cold or ordinary catarrhal bronchitis.

Perhaps he has been previously subject, more or less frequently, to similar attacks, but has never found them to coninue so long, or to affect his general flesh and strength as this attack has done. Stooping over his desk or work bench, or at the sewing machine, as the case may be, there has been a deficient expansion of the lungs, and consequently deficient aeration of the blood. The waste, effete material accumulates in the blood and system, and impairs the general tone and vitality.

Portions of the lungs not fully and freely expanded, under these circumstances, become the seat of chronic congestion, and finally of exudation and infiltration. This process may go on slowly and imperceptibly for a considerable period of time, until finally a slight catarrhal inflammation is the means of starting it into activity.

If allowed to progress unchecked, these cases of phthisis of inflammatory origin, if we so designate them, or of chronic catarrhal pneumonia, according to the German pathologists, follow exactly the same course, to the same fatal termination, as tuberculosis of hereditary origin.

These, however, as has long been recognized, are manageable and curable cases, if taken in the early stage. Change of occupation and out-door life, with free, full, deep breathing and expansion of the lungs, will arrest the progress and cause the re-absorption of such granular or tuberculous deposits in a majority of instances.

If the air-passages are very sensitive and the seat of chronic catarrhal irritation, a change of climate may be necessary to overcome this element in the case.

The first and most important step in the treatment is, however, to establish and fix the habit of full, deep respiration.

Deposits and exudations can only be re-absorbed through the re-establishment of the active capillary circulation in the part, and this is of course dependent on its free expansion. In the accomplishment of this purpose, we believe the inspiration of compressed, and the expiration into rarified air, as already explained, to be the most certain and efficient aid.

Prompt and rapid improvement has taken place in every case of simple inflammatory phthisis that I have placed upon this course of treatment.

In cases involving a tubercular, scrofulous or syphilitic family history, the results are very much more uncertain and unsatisfactory, as regards anything more than temporary relief or improvement.

In tuberculosis, advanced to the stage of softening, I do not think any benefit could be expected from the use of compressed or rarefied air, but, on the contrary, I should fear the occurrence of hæmorrhage from its use, as sometimes happens when patients, so far advanced in tuberculosis, go into too rarefied a mountain atmosphere.

In a number of cases of chronic bronchitis, the use of the compressed and rarefied air has relieved the immediate symptoms of cough and dispnœa very promptly. Whether its continued and persevering use would finally overcome the sensitiveness and chronic congestion of the mucous lining of the air-passages, so as to effect a permanent cure, remains yet to be proved, as regards my own experience.

The German writers upon the subject claim that it does so effect a permanent cure, and theoretically its effects upon the capillary circulation of these mucous membranes ought to diminish chronic congestion and thickening.

For emphysema the expiration into rarefied air, is also claimed to be a means of radical cure. In this class of cases, or in valvular diseases of the heart, I have not as yet had an opportunity of testing satisfactorily its effects.

THE MAJOR AMPUTATIONS IN THE COOK COUNTY HOSPITAL DURING THE ELEVEN YEARS ENDING DECEMBER, 1875.

By C. T. Fenn, M. D., Chicago.

In the latter part of December, 1876, the old County Hospital, occupied since January, 1866, was vacated, and the patients were removed to the new hospital. This departure from filth and miasma to cleanliness and wholesome surroundings, inaugurates a new period in the history of the County Hospital; and all statistical reports, which in the future may be collected from the records of the hospital, must always bear in mind the difference of the sanitary conditions during the first and second period. In view of these facts, we prepared the following list of all the major amputations performed in the old hospital from 1866 to 1876.

The table does not include amputations of the hand and foot, or disarticulations of the wrist and the ankle joints.

Primary amputations are those which were done within the first forty-eight hours succeeding the injury.

Intermediate amputations are those which were performed between the third and thirtieth days.

Secondary amputations are those which were done after the thirtieth day.

Pathological amputations are those which were undertaken for the cure of disease.

CAUSES LEADING TO AMPUTATION.

There were fourteen amputations for ill-conditioned stumps; one in the upper extremity; thirteen in the lower extremity. All were, more or less, remote from the seat of original operation: one being at the hip-joint for malignant disease of leg-stump; one in the middle third of the thigh for secondary

TABLE OF MAJOR AMPUTATIONS IN THE COOK COUNTY HOSPITAL, FROM 1866 TO 1876.

	PRIMARY.			INTERMEDIATE.			SECONDARY.			PATHOLOGICAL.			NOT CLASSIFIED.			TOTAL.		
	Cases.	Deaths.	Per Cent.	Cases.	Deaths.	Per Cent.	Cases.	Deaths.	Per Cent.	Cases.	Deaths.	Per Cent.	Cases.	Deaths.	Per Cent.	Cases.	Deaths.	Per Cent.
ARM.																		
Shoulder joint	7	4														7	4	
Upper third	9	2		1						2						12	2	
Middle third	1						1			1						3		
Lower third	5			3			1			3	1					12	1	
Seat not recorded	4												1			5		
In all	26	6	23.07	4			2			6	1		1			39	7	17.94
FOREARM.																		
Elbow joint	1															1		
Upper third	4	2														4	2	
Middle third	1									1						2		
Lower third	3			2	1		1									6	1	
Seat not recorded	1															1		
In all	10	2	20.00	2	1		1			1						14	3	21.42
THIGH.																		
Hip joint										3						3		
Upper third							1									1		
Middle third	7	3		1						1						9	3	
Lower third	11	6		2						14	3					27	9	
Seat not recorded	1			1						1			1			4		
In all	19	9	47.36	4			1			19	3	15.78	1			44	12	27.27
LEG.																		
Knee joint	3	1					1			4						8	1	
Upper third	13	4		5	2		8	2		6	1					32	9	
Middle Third	4			4	1					2	1					10	2	
Lower third	3			9	4		6	2		9	1					27	7	
Seat not recorded	5			2						1			2			10		
In all	28	5	17.65	20	7	35.00	15	4	26.66	22	3	13 63	2			87	19	21.83
SUMMARY.																		
Upper extremity	36	8	22.22	6	1	16.66	3			7	1	14.28	1			53	10	18.86
Lower extremity	47	14	29.78	24	7	29.16	18	5	27.77	39	5	12.82	3			131	31	23.66
In all	83	22	26.50	30	8	26.66	21	5	23.80	46	6	13.04	4			184	41	22.28

hemorrhage from leg-stump; six in the upper third of the leg, two of which were for ulcerated foot-stumps; one for gangrene of foot-stump and leg; and three for ulcerated leg-stump. One of the latter resulted in death, and one in a second re-amputation above the knee. Five in the lower third of the leg for unhealed leg-stumps, two, double, resulted in death; one in a second reamputation. One in the leg, seat not designated. One of the arm for inflammation of fore-arm-stump.

Mortality after re-amputations $21\frac{42}{100}$ per cent.

There were eight amputations for ulcers, all in the lower extremity.

There were eight amputations for malignant diseases. Three in the upper extremity; five in the lower extremity.

There were ten amputations for frost-bite. One in the upper extremity, and nine in the lower extremity.

There were twenty-seven amputations for caries. Two in the upper extremity, and twenty-five in the lower extremity. Twenty-five of these cases involved the joints; one the wrist, one the elbow, nine the ankle, twelve the knee, and two the hip. Of the nine cases of caries of the ankle-joint, one died; of the twelve cases of caries of the knee, two died.

There were one hundred amputations for injuries. Forty were in the upper extremity; sixty were in the lower extremity.

There were four amputations for gangrene, all in the lower extremity.

There was one amputation for cellular inflammation in the upper extremity.

There was one amputation for atrophy and deformity in the upper extremity of the right side.

There were eleven amputations for causes not stated. Four in the upper extremity, and seven in the lower extremity.

Of fifty-three amputations in the upper extremity, seventeen were of the right, twenty of the left, and sixteen not referred to either side.

Of one hundred and thirty-one amputations in the lower extremity, forty-nine were of the right, forty-two of the left, and forty not referred to either side.

Of the forty-one amputations whose result was fatal, ten were in the upper extremity ; thirty-one were in the lower extremity.

DEATHS.

Of the thirty-nine deaths which occurred, nine had for their immediate cause shock or collapse ; four on the first and five on the second day. Nine deaths were put down as due to exhaustion; five within the first five days, three between the fifth and the tenth days—one being in consequence of a double re-amputation of the legs on an old man 75 years of age—and one on the fourteenth day. Seven deaths were caused by septicæmia, one in consequence of a double amputation of the legs on the fourth day, the others on the sixth, eleventh, fifteenth, eighteenth, twenty-first and seventy-first days respectively. Fourteen were due to pyaemia, occurring respectively on the third, seventh, ninth, tenth, fourteenth, fifteenth, twenty-first, twenty-fifth, thirtieth, thirty-first, thirty-fifth, fifty-ninth and sixty-fourth days.

AN ANALYSIS OF FIVE HUNDRED CASES OF SKIN DISEASES.

By W. J. Maynard, M. D., Chicago.

(Condensed from a Report on Dermatology, to the Chicago Medical Society, May 21st.)

In the past too little attention has been paid by the teachers of medicine to the subject of Dermatology. I was once told, that in treating cutaneous diseases, it was only necessary to remember that, "Skin diseases could be divided into two classes, specific and non-specific. For all non-specific cases give arsenic for a cure, and for all those that have a specific origin, give iodide of potassium." If so concise and brilliant a manner of inviting attention to this large field of practical medicine is generally adopted in the teachings of others, it is

not at all strange that this subject is so much neglected, and a large majority of college graduates kept in profound ignorance of a department of medicine, that they, at least, should have a general idea of. This work, however, has been pushed on more vigorously, and thanks to those who have labored the most industriously in this field, we find that in a few years rapid advancement has been made towards greater perfection; and while we find to-day that dermatology is in a very flourishing condition, yet from the increased attention paid to it in every direction, we must expect much more brilliant results in the future, and truths promulgated that will not be merely the results of empirical teaching, but rather those that emanate from thorough investigation and scientific pathological research.

In a report to the State Medical Society of Kentucky, Dr. Yandell makes, as a basis of his report, that chronic skin diseases have their origin in the strumous diathesis, while acute diseases have a malarial origin. He says, also, that struma may give evidence of its active existence at birth, or remain many years latent in the system; bad hygienic surroundings, depraved habits, exposure to changes of temperature, bodily injuries, and acquired diseases, are the most usual excitants of its development into activity. Malaria is a subject on which there is a wide range of opinion, and concerning which but little is definitely known, whether it arises from the emanations of living or decaying plants, or has its origin in microscopic vegetable organisms, or due to certain changes in the constituent elements of the atmosphere, or is chargeable to the excess or deficiency, or change, of some normal constituent of the blood, he cannot discuss, but holds that it is a prolific source of skin disease. Whether or not there is a malarial diathesis, as has been suggested, there is such a thing as latent malaria, and this, like struma, can be germinated, incubated, ignited or crystallized by changes of temperature, dentition, physical injuries, improper, excessive, or insufficient food.

To these, also, we would add the syphilitic diathesis as a very active agent in the production of these lesions; and while we cannot go as far as he and assert that skin diseases have

their direct origin in certain diathesis, yet we would rather regard them as part or modifying causes, and as long as they exist have a tendency to perpetuate or intensify the existing disease.

The more experience we have in the treatment of these maladies, the more we are convinced that such conditions do lie in the back-ground, particularly in young life, and without the aid of remedies that are directed to these peculiar conditions, we find that chronic skin-diseases are exceedingly obstinate, if not incurable. Thus, in the treatment of cutaneous disorders, must we be very thorough in searching for the cause of disease, and although we see many that have simply a local origin, a large majority that come under our observation have their origin from within the body, and while it is very essential that we should direct our attention closely to the local manifestations, yet for the permanent cure of the disease, we must remove that cause, whether this be due to some organic disease of internal organs, to mal-nutrition, to blood alterations, from bad assimilations, or due to degenerative tissue changes. Thus Piffard, in speaking of the rheumides (in this class he puts eczema, psoriasis, pityriasis, etc.) says, "it may be formally stated that the affections pertaining to this diathesis are all probably due to an accumulation in the blood of an excess of certain excrementitious substances, and presumably those that are efficient in the causation of gout and rheumatism; the blood is subalkaline, that is, deficient in alkalies. The accumulation in the blood of these excreta is due to either deficient kidney action, or these substances are produced in excess. This excess is due either to over-supply of albuminoid food, the surplus not being thoroughly oxidized, or there is a failure on the part of the oxidizing processes to fully complete the changes. Murchison says, "there are strong reasons to believe that the liver is the organ more particularly at fault in this connection. The principal indications then to be filled are, to depurate the blood by calling into action the kidneys, bowels and skin, and promoting oxidation by taking away excessive amount of meat, if this condition is due to incomplete oxidation of an excessive amount of albuminoid

ingesta. Increase oxidation also by preparations of iron, chlorate of potash, etc., stir up the liver, encourage out-door exercise, good ventilation, bathing, and diet."

These conclusions, although of the utmost importance in treatment, cannot now be further spoken of, for the reason that the main object that I have in view in presenting this article is to give, in as brief a manner as possible, an analysis of 500 cases of skin diseases that I have met with during the last two years (the exact number is 547), and wish to invite attention to some practical methods of treatment that experience has shown to be of value in these disorders. It is simply impossible in dispensary practice to carry out a thorough line of treatment, on account of the ignorance and carelessness of the patients and their manner of living, and then, too, many not being able to leave their daily employment, are irregular in their attendance, and negligent in obeying instructions, and by these means prolong a disease that might have been of short duration. However, in spite of all this, I have seen the most gratifying results in treatment, and in the management of these cases I claim nothing that is particularly original, but, rather, have followed the teachings of the more modern school of dermatology. This analysis shows that eczema stands first in point of frequency, occurring 158 times in the 547 cases. By comparison, I find that this ratio is about the same as that given by other observers. In the management of these cases of eczema I always first look for a cause, and in most instances find that debility, over-work, stomach derangements, and local irritation lie at the root of the trouble, and endeavor as soon as possible to do away with these conditions. Then, in some we find we have to do with gout, rheumatism, and deficient kidney action, and in young life we have hereditary and diathetic influences. Thus, the causes being multiple, it follows that each case must have its own peculiar treatment, while the local treatment must vary according to the particular stages of the disease. Thus, in the more acute stages, where the exudation is great, I rely upon the absorbent powders, as oxide of zinc and starch, equal parts, to which a little camphor may be added; another has been used with benefit, as liquor plumbi

subacetatis ʒij, tinct. opii ʒiv, to twelve or sixteen ounces of water. In the subacute stage, where the exudation has in a great measure ceased, and where there may be slight scaliness, I prefer the ointments, as the benzoated oxide of zinc, or what answers better in my hands, a mild mercurial, as the ammonio-chloride five to ten grains to the ounce. Where there is no discharge, but dry patches with more or less infiltration, I rely upon tarry preparations, as oil of cade ʒij to the ounce, or the strong alkalies, as green soap, either alone or mixed with alcohol, or what can be used in its place with good results caustic potash two grains to ℥ss to an oz. f. In private practice I rarely use lard as an excipient, for the reason that it soon becomes rancid and does harm. In its place I usually prescribe cosmoline, vaseline, or rose ointment. In eczema of the head in children, I always direct that the thick crusts be at first removed by a poultice, and then do not allow them to use it again, or wash the head, but prevent the re-accumulation of scales by soaking the head in cod liver oil, afterwards using a mercurial or tarry ointment according to the conditions present, the head at the same time covered with an oil-silk cap. Cod liver oil also is freely given internally, either with or without the syrup of the iodide of iron.

The next in order of frequency come the syphilodermata, ninety-four in number. In these cases all primary and secondary forms of the disease were treated with preparations of mercury, the most effective of which was the bichloride. In all later forms of the secondary stages, the best results were obtained from the so-called mixed treatment, that is a combination of mercury with iodide of potassium.

One of the most obstinate and unsatisfactory diseases that we we are called upon to treat is acne. Thirty-one cases are recorded. Although this is generally regarded as a disorder of adolescence, yet I have seen it frequently in those who were beyond this period of life, and think that in a majority of my cases there was associated more or less stomach derangements, and constipation, and uterine troubles. These causes were removed as far as possible, and at the same time the patients were directed to bathe the face night and morning in hot water, and apply

lotions to the parts. If I have to deal with the tuberculous variety, I generally use sulphur in some form, as the iodide of sulphur ointment, or, what is better still, equal parts of sulphur, alcohol, glycerine, and water. I have used in some cases, with much benefit, a lotion of borax, bichloride of mercury, glycerine, and water. Where these failed to do good, good results have been obtained from a lotion of sulphate of potash, sulph. zinc, glycerine, and water. In acne rosacea caustics are necessary. Neumann extols one part of carbolic acid to three or four of alcohol.

In this list are found thirty-seven cases of psoriasis. Great care is sometimes necessary to distinguish the non-syphilitic from those of a syphilitic origin in this class, for the reason that the usual diagnostic marks and a syphilitic history are sometimes absent. In acute cases of psoriasis I am in the habit of giving alkaline diuretics freely. A large majority of these cases were chronic, and were treated with carbolic acid internally in four drop doses gradually increased. Some of these patients made better progress with a combination of carbolic acid and arsenic. Locally, the parts were rubbed with mercurial, tarry, or alkaline ointments, according to the case. I have a patient under my care at the present time who has had the disease for twenty-four years, and for the first time is improving rapidly under a treatment of carbolic acid and Fowler's solution of arsenic, with frictions of green soap and alkaline baths. In a recent number of the London Lancet, Dr. Cuttle recommends very highly in psoriasis, a solution of India rubber which he paints over the affected patches, after having removed the scales, renewing the operation from time to time in order to maintain an impervious coating. He cites fifty cases treated in this manner, and with great success. This is really a modification of the plan adopted and extolled by Hebra on the continent, and McCall Anderson, of Glasgow, and I mention it in this connection, for it is really an improvement, inasmuch as it is much less expensive, and fills the same indications.

There were fifty-one cases due to the animal parasites; thirty-nine of these were from pediculi, and are called phthiriasis.

It is not at all necessary, in a disease of this kind, to search the clothes for the offending parasite, as the hæmorrhagic mark that it leaves upon the skin is quite characteristic, and when discovered is absolutely diagnostic. All that is necessary in treatment is to thoroughly bake the clothes and apply ammonio-chloride of mercury ointment to the skin. Twelve of these were due to the acarus scabiei, and were all treated locally with sulphur ointment, or what I found a more speedy method of cure was an ointment of sulphur ʒss, grs. v. of the white precipitate with five to six drops of carbolic acid to the oz.

Twenty-five cases of urticaria recorded were mostly chronic, and were treated locally by alkaline and sedative lotions, and by removing the cause wherever it could possibly be found. There were found twenty-three diseases due to the vegetable parasites, comprising nearly all of the different varieties, of which there were ten cases of tinea circinata, three of tinea tonsurans, six of tinea versicolor, four of tinea sycosis. Recognizing the fact that the disease depended chiefly upon local irritation, the treatment in these cases was entirely local, and consisted either in white or red precipitate ointments, lotions of the bichloride of mercury, or a strong solution of borax. A great deal has been said lately in the journals of the influence of goa powder over these diseases, and as a parasiticide is said to be more certain in its action than anything yet known. This goa powder is a vegetable substance, and is the product of some unknown plant. It comes from Brazil, where it is known as araroba. Its chief active properties are supposed to be due to chrysophanic acid.

There were twenty-two cases of herpes. Among this number are found all the different varieties, with the exception of herpes iris. which I never have seen. Among my eighteen cases of erythema were found all the different varieties of this disease, and in nearly all there was more or less disturbance of the digestive functions. One case of erythema nodosum was easily cured by quinine, where other remedies had failed to do good.

There were seventeen cases of impetigo, six of which were of the so-called impetigo contagiosa. In these diseases tonics

and cod-liver oil are always indicated, with removal of the scabs, and topical application of glycero-tannin, or a mild mercurial ointment. Eighteen cases of pruritus are recorded in different parts of the body, and depending upon different causes, which in most cases must be removed before the trouble will cease.

There are recorded in this list three cases of purpura; very little is known as yet in regard to the true pathological condition present in this disease, and consequently the treatment has generally been unsatisfactory. My first case was treated by astringents, as almost universally recommended by the books, as solutio ferri persulph., turpentine, etc., but without the least success. My failure in this case induced me, in the next two, to resort to ergot, and obtained the very best results, both cases that had been existing for some time, yielded very easily to its influence. I used the fl. ext. in teaspoonful doses three times a day. The decided power it has over the involuntary muscular fibres, and the manner in which it arrests hæmorrhage in other affections will account for its speedy action in these cutaneous hæmorrhages.

Eight cases of lichen are recorded, of which six were of the simple variety, two of lichen pilaris, and one answered well to that form of disease the lichen ruber of Hebra. They were all treated by sedative lotions and tonics.

Thus briefly have we selected a few of the more prevalent forms of the recorded five hundred cases, and have given a general idea of their management. The remainder of the list comprises three forms of skin diseases that we occassionally meet with, and as their history may not be particularly intresting to all, I will not allude to them further than to mention that there are eight cases of lupus recorded, five cases of pityriasis, and three of ecthyma. Seborrhoea occurred four times, and erysipelas three; four cases of eczema marginatum. There are two cases of ichthyosis and two of chloasma. One case of that rare form of disease prurigo; only one of pemphigus, and one of hydroa. Alopecia areata was seen only once, and likewise keloid, xerodema, and elephantiasis arabum.

A COMPARISON OF THE MORTUARY STATISTICS OF SAN FRANCISCO, CHICAGO, CINCINNATI, PHILADELPHIA, CHARLESTON, BOSTON, ST. LOUIS, RICHMOND, BALTIMORE, NEW ORLEANS, NEW YORK AND LOWELL, MASS.

By E. Fletcher Ingals, M. D.

From this table we find that the greatest proportion of deaths from phthisis occurs in Lowell, Mass. Next follow Boston and San Francisco at fifteen per cent.; several cities at 11.68 to 14.42 per cent; St. Louis 8.6, and Chicago 7.6 per cent. In these same cities the per centage of deaths from acute pulmonary affection, classed as pneumonia, congestion of the lungs, and bronchitis, is as follows:

Chicago, 7.8 per cent.; St. Louis, 8.3; Charleston, 6.55; New Orleans, 6.22; Cincinnati, 8.9; Philadelphia, 9.17; Richmond, 7.13; Baltimore, 5.85; Boston, 10.49, and San Francisco 8.4 per cent. While these statistics are not absolute proof of the advantages for those predisposed to pulmonary disease, to be derived from a residence in any one of these cities, they show that the dangers to the community from phthisis are much less in Chicago and St. Louis than in the other cities. Grouping together those cities in which the mortality from phthisis is greatest, we find that, with one exception, they are located on or near the sea shore; while those in which it is least are inland. We have not the statistics from Buffalo, but from a table, which is in our possession, we find that the per centage of deaths in that city from consumption is a little lower than in any other city in the United States. From this, it appears that phthisis is more common on the sea coast than inland, and that proximity to a large inland lake, instead of increasing the mortality from this

	Years	Total Mortality	Deaths from Phthisis and Hæmoptysis	Percentage of Total Mortality	Deaths from Pneumonia, Bronchitis, and Congestion of the Lungs	Percentage of Total Mortality	Deaths from Diseases of the Heart	Percentage of Total Mortality	Deaths from Rheumatism	Percentage of Total Mortality	Deaths from Aneurisms.	Percentage of Total Mortality	Deaths from Typhoid and Typho-Malarial Fevers.	Percentage of Total Mortality	Deaths from Cholera Infantum, Cholera Morbus Enteritis, Entero-Colitis, Diarrhœa and Dysentery	Percentage of Total Mortality	Deaths from Cholera, Diphtheria, Scarlatina, Cerebro-Spinal Meningitis, and Variola	Percentage of Total Mortality
*San Francisco	1872-'73, '74 & '75.	13897	2087	15.	1171	8.4	625	4.5	35	.25	167	1.2	412	2.96	888	6.39	866	6.23
Chicago	1872-'73, '74 & '75.	35937	2727	7.6	2790	7.6	641	1.8	96	.27	22	.06	1214	3.40	6618	18.57	2810	7.65
Cincinnati	1872-'73, '74 & '75.	21482	2638	12 28	1912	8.9	533	2.48	53	.24	15	.06	514	2.39	1968	9.16	3456	16.08
Philadelphia	1872-'73, '74 & '75.	67254	9491	14.11	6173	9.17	2438	3.62	173	.25	72	.10	1678	2.49	6929	10.3	6074	9.03
Charleston, S. C.	1871-'73, & '75	5050	590	11.68	331	6.55	144	2.8	12	.23	6	.11	103	2.03	374	7.40	236	4.67
Boston	1872-'73, '74 & '75.	33597	5045	15.01	3535	10.49	1164	3.46	165	.49	18	.05	810	2.41	4156	12.37	3521	10.48
St. Louis	1872-'73, 74 & '75.	24136	2078	8.6	2004	8.3	267	1.1	49	.19	8	.03	447	1.85	3343	13.85	4384	18.16
Richmond	1873 & 1874	3628	513	14.14	259	7.13	122	3.36	5	.13	1	.01	125	3.44	478	13.17	.....	.....
Baltimore	1873-'74 & '75	22605	3261	14.42	1323	5.85	598	2.64	160	.69	10	.04	660	2.94	2790	12.34	1937	8.56
New Orleans	1873-'74 & '75	20120	2506	12.27	1271	6.22	617	3.02	27	.13	20	.09	236	1.15	2299	11.25	1905	9.32
New York	1874 & '75	59436	8206	13.80	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	four years	13.75	.....	.....
Lowell, Mass	1874 & '75	2201	397	18.03	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

* The Chinese are excluded from the statistics of San Francisco.
† Rubeola was omitted from this list accidentally. There were very few deaths from cholera in any of the cities of this list for any of these years.

disease, seems to lessen it, as shown by comparing the statistics from Buffalo and Chicago with those of St. Louis.

If we find the per centage of deaths from phthisis, to the total mortality, less the number of deaths produced by the principal enteric and zymotic disorders, we obtain the following results:

San Francisco, 17.18 per cent.; Chicago, 10.44 per cent.; Cincinnati, 16.42; Philadelphia, 17.49; Charleston, 13.28; Boston, 19.42; St. Louis, 12.66; Baltimore, 18.24; New Orleans, 15.45. Though the ratio is changed by this computation, still the general results remain the same. As there is only one condition common to San Francisco, Boston, Philadelphia, New Orleans and Baltimore, we have much reason for suspecting that residence near the sea shore is prejudicial to phthisical patients. Yet we cannot set this down as a rule unless we make an exception of Cincinnati. The large mortality from phthisis in San Francisco has been explained by the statement that many consumptives go there to die. This is doubtless true to a certain extent, but it is also true that those who settle new countries are usually uncommonly vigorous persons, or, in other words, those who are least likely to die of phthisis; still this explanation may be in part correct, for we find that before the completion of the railroad, viz., in '66 and '67 the per centage of deaths from consumption and hæmoptysis was only 13.99, whereas for the years '72, '73, '74 and '75 it was 15 per cent. However we cannot place much stress upon this explanation, for it is doubtless true that of the consump tives who leave the older States for the Pacific Coast, in pursuit of health, very few remain in San Francisco, because the ocean winds that daily come in through the Golden Gate drive them south, or inland, to more sheltered places.

As we would naturally suppose, acute pulmonary affections are shown to be less frequent in southern than in northern cities. We observe that in those cities where the per centage of deaths from phthisis is greatest, the per centage of deaths from diseases of the heart is also large, and the ratio remains much the same after deducting the principal enteric and zymotic causes of death. This disfavors the old idea that

phthisis, and diseases of the heart are antagonistic; or, at least, it suggests that in some cases they may possibly result from similar causes.

In San Francisco heart diseases cause 4.5 per cent. of the total mortality, while the average mortality in all the other cities from these affections is only 2.79 per cent. This brings us to the most singular fact revealed by this table; viz., the surprising prevalence of aneurisms in California. The mortality from this cause alone in San Francisco amounts to *one hundred and twenty* in every ten thousand deaths; while in all the other cities of this list it is only *nine* in every ten thousand. The principal causes predisposing to aneurisms are said to be 1st. fatty degeneration of the arterial coats; 2d. age (after puberty); 3d. forcible, irregular and occasionally greatly increased action of the heart; 4th. climate; 5th. cachexy, and 6th. obstacles to the free flow of blood through the arteries or capillaries. Of these causes, the second, age, and fifth, cachexy, can have no more to do with the production of aneurisms in San Francisco than in any other city. The first, fatty degeneration, would seem to be equally impotent. The sixth, obstacles to the flow of blood, possibly has some significance, for it may be that all the inhabitants of California are more accustomed to the abuse of alcoholics than those of other portions of the United States, and that as a consequence they are more liable to diseases of the liver and kidneys, which, by causing contraction of the capillaries, lead directly to cardiac disease and dilation of the larger arteries. However we are unwilling to believe that the people of San Francisco are more intemperate than those of many other cities.

The fourth cause enumerated would not favor the production of aneurisms in San Francisco, for it has not a cold climate. It has been stated that aneurisms are more common in Great Britain and Ireland than elsewhere; that they are common in the United States, less common in France and Germany, and rare in the East Indies. This difference Mr. Erichsen attributes to the effects of temperature; but perhaps it might with greater propriety be attributed to the use of alco-

hol. Certainly, we never in any other place witnessed so much inebriety as in Great Britain. Wines are used freely on the continent of Europe, but we are of the impression that drunkenness is less common there than in our own country.

The third cause enumerated, forcible, irregular, and often excessive action of the heart, is doubtless a potent agent in swelling the per centage of deaths from aneurisms in San Francisco. Probably in no other city in the Union, if in the world, is the excitement of business so great. The mania for speculation, which seems to have fallen upon nearly every man, woman and child in the Golden City, together with the great and almost daily fluctuations in mining and other stocks, must keep the community in a state of excitement which cannot fail to affect the circulatory organs of susceptible individuals. The relaxation of the muscular system, which every one has observed as incidental to sudden changes from a low to a high temperature, may possibly have some influence in the production of aneurisms, and the sudden change from a high to a low temperature, which takes place nearly every summer's day in San Francisco, must cause contraction of the superficial capillaries with obstruction to the flow of blood through them and consequently increased pressure in the larger arteries.

Richmond suffered most from typhoid and typho-malarial fevers, which caused in that city, 3.44 per cent. of its total mortality.

St. Louis suffered most from the principal zymotic disorders which caused 18.16 per cent. of its total mortality. Next to St. Louis in this category, comes Cincinnati, where the per centage was 16.08. Charleston, S. C., suffered least from this class of diseases; viz., 4.67 per cent. From the principal enteric disorders Chicago loses most; viz., 18.57 per cent., and San Francisco least, 6.39. St. Louis loses 13.85 per cent.; New York, 13.75; Richmond 13.17; New Orleans 11.25; Boston, 12.37; Cincinnati, 9.16; Charleston 7.40. This is a matter of special interest to us. Of the 6,618 deaths which occurred in this city during the last four years, 4,969 were from cholera infantum alone. If we could prevent this one disease, or the various affections which are reported under

this name, and which whether actually cholera infantum or not, doubtless depend upon similar causes; Chicago would be the healthiest city in the United States. The most influential causes in the production of cholera infantum, are, first, continuous heat for several days at 85°, 95° F; second, unwholesome diet, especially immature or decaying vegetables, and impure milk; and third, those well recognized causes which favor the production, or foster the continuation of epidemic cholera.

Probably there is not a city in this list where the average summer temperature is lower than in Chicago, unless it be San Francisco, and there is certainly not one where wholesome food is cheaper and more abundant. We presume the milk which is supplied to our inhabitants is as pure as that used in other large cities. Therefore, we think neither temperature nor diet can account for the great mortality in this city from cholera infantum.

Authors agree that the most potent causes of this disease are the same as those which favor the production, or continuance and propagation, of epidemic cholera. First and foremost among these are animal poisons arising from the decomposition of organic matter in and about slaughtering houses, glue factories, rendering establishments, &c. Among other causes, are bad drainage, obstructed sewers, neglected privies, overcrowded tenements, and poor ventilation. The latter of these causes cannot be especially operative in Chicago, and probably they are even less active here than in most other cities on this list; for Chicago is built on a broad prairie over which the wind sweeps without obstruction, its inhabitants are not crowded, and they have an inexhaustible supply of pure water. The drainage here may be defective, still it is much better than in New Orleans, where the per centage of deaths from these diseases is only 11.25, and it is doubtless as good as in Charleston, where the percentage is only 7.40. We do not think our large mortality from enteric affections can be due to poor drainage. In St. Louis where the drainage is very perfect, the percentage of deaths from these causes is larger than in New Orleans. The first and most potent cause of cholera

infantum and kindred diseases; viz., decomposing organic matter, seems to be the one from which we suffer most, and there seems no opportunity for doubting that we could greatly lessen the mortality from this affection by removing the causes of that noisome stench, which during the warm months, comes up from Brigdeport and the North Branch, and spreads like a putrescent pall all over the entire city.

Summarising the results of this analysis, we have the following conclusions, which, although they cannot be set down as established facts, still bear the stamp of strong possibilities.

1st. Residence by the sea-shore is prejudicial to phthisical patients.

2d. There is something peculiar to the climate of San Francisco, or to the business and social relations of its inhabitants, which strongly predisposes to aneurisms.

3d. A large percentage of the mortality in Chicago is the direct result of organic poisons emanating from the slaughter-houses, glue factories and rendering establishments of Bridgeport, and the foul water in the North Branch.

HEMIOPIA.

By Wm. Dickinson, M.D., St. Louis, Mo.

Hemiopia is comparatively a rare affection: it is not a disease; it is but a symptom of disease. This term signifies half-vision; that is, vision with only one-half of the eye, the other half being insensible to visual impressions; implying that condition of the rods and cones, or of the optic nerve-fibres of the retina, or of the optic-nerve itself, or of the optic tract, in which only one-half of these several portions is capable of receiving or transmitting visual impressions to their destination where they are converted into perceptions. The lesion determining this condition may exist in one eye

only, or in both; generally, however, the *right* or the *left half* of all objects is the portion unseen; the upper or the lower halves may be thus affected, though rarely. Again, the temporal half of each retina may be the portion insensible. According to the generally received doctrine of the semi-decussation (of which there are grave doubts) of the optic nerves, this phenomenon is to be explained by lesion of those fibres which do not cross at the chiasma. In such cases the impairment of vision is often very rapid, the sight being utterly destroyed within a few days. Usually, however, both eyes are symmetrically affected, the right-half of each retina, or the left-half of each retina, being involved. In such cases the hemiopia is termed equilateral or homonymous. This condition may exist alone, uncomplicated with any other affection; it is then transient and induced by reflex action, the result of the perverted function of some remote organ. It is often found associated with hemiplegia; then it becomes an infallible index of a disease, which even now sapping, will, unless arrested, ultimately destroy the citadel of life.

Hemiopia sometimes supervenes slowly, and is then due to softening of portions of the brain; but more frequently it is sudden in its invasion and is dependent upon hemorrhagic or serous effusion. If this is in small quantity and speedily absorbed, the affection will soon disappear; if it be of functional or reflex origin, it will subside with the disappearance of the cause. These recurrences and intermissions, in long series, may characterize its visitations.

Dr. Wollaston, who, in the year 1824, directed attention to this affection by his paper on the semi-decussation of the optic nerves, himself suffered two attacks of this affection, and has left on record his experiences. The second attack recurred after an interval of twenty years; but the effects, *apparently* to him, entirely disappeared after fifteen or twenty minutes. In the first attack the left half of all objects appeared dark; and in the second attack, the right half. The first attack he attributed to violent exercise which he had taken two hours before. He states, he suddenly found he could see but one-half the face of a man whom he met; and it was the same

with respect to every object looked at. For instance, in attempting to read the name, Johnson, over a door he saw only *son*, the commencement of the name being wholly obliterated from his view. The second attack was without any assignable cause. Judging from the narrative whence this extract is taken, it is evident the Doctor had but an imperfect appreciation of the real cause of his hemiopia. For having died four years later, an examination of his brain revealed a condition of which probably he had no suspicion. The right thalamus was of unusually large size, and little or no vestige of its natural substance was perceptible. It had been converted into a tumor, harder than the brain itself, somewhat of a caseous substance towards the circumference, and in the centre of a brown color, soft and in a half-dissolved state. The right optic-nerve, where it passes on the outside of the optic thalamus, was also of a brown color, more expanded and softer than natural.

In harmony with the theory of the semi-decussation of the optic nerves, is the description of these nerves given by "Wilson" in his Anatomy, to which reference may be made.

With this introduction we pass to the narrative of the case by which it was suggested.

S. R. is a man of about forty years of age, of temperate habits, light complexion, hair and eyes; of medium height, and weight about 160 pounds; his vocation that of a merchant, and for several years has closely devoted himself to business often to a late hour of the night. He states that scrofula is a hereditary peculiarity of his family, and that his father died suddenly while at church, at the age of sixty-two years. He confesses himself to have been the subject of syphilis twenty years since, but was then cured and no evidence of the disease has since recurred. In July, of '73, during a period of good health, though the subject of frequent headaches, while engaged in the ordinary routine of business at the store, he suddenly experienced a partial loss of motion and sensation of his left side and extremities (partial hemiplegia) without apparent cause of any kind. From this attack he recovered in the course of a week or ten days, and resumed

his business. During the succeeding three years he was exempt from any recurrence of a similar character. During July, of '76, though consciously ill, he yet attended to business as usual, which was not necessarily confining or requiring much mental effort. One morning, while walking to his store, less than one-half mile distant, he experienced a sensation of numbness of the left side, involving face, arm, body and leg—losing the use of the latter to such a degree as to induce him to sit down. After a little time he so far recovered as to be able to reach the store; but after two or three hours he went home in a carriage. During this attack he observed some formication in the extremities, but no pricking sensations and no distortion of the face or mouth. He has never noticed any differences in temperature of his two sides; never lost entire control of use of left arm, hand or leg, though they were perceptibly weaker than those of the other side. His gait, at times, was a little unsteady and often to such degree as to require him to sit. He has never suffered from constipation, never had a fall or received a blow upon his head. His hearing during the past year has diminished in a slight degree, though yet good.

His medical adviser prescribed appropriate remedies, and recommended a period of travel for respite from business and for recreation. This advice was adopted and much benefit received. About Sept. 20th, he first observed he was unable to see distinctly objects on the left side of the median line. This inability has since much increased. He has also observed some confusion of ideas and some difficulty in concentrating his mind. He has also perceived some difficulty in articulating distinctly. His wife has noticed occasional twitching of of the eye and an obvious change in his manner and general deportment—a peculiarity also observed by his friends,—and in his disposition a degree of restlessness and irritability; his mental equilibrium being disturbed by circumstances which formerly produced no effect, often quite excited by those of a trivial nature; but of all these latter mental deviations he himself is totally unconscious. He has also experienced a sensation of fullness in his throat, as if it was swollen, but dif-

fering from that condition consequent upon an attack of bronchitis. Respiration is somewhat embarrassed and deglutition also, but the sense of taste is not perceptibly affected. For about a year he has observed that his vision was not quite as acute as formerly. He has, to some extent, used tobacco by smoking, but not intoxicating liquors. Recently his feet have been almost habitually cold, while formerly they were disagreeably warm, amounting to a hot sensation when touched.

Such was the general condition of our patient when he first consulted me. In his manner there was nothing specially observable, save perhaps a semblance of listlessness or of general lassitude; in all other respects he bore the appearance of a man in perfect health. The action and sounds of the heart were normal; but during the past year he has observed that active exertion, or to an unwonted degree has produced a hurried respiration from which he was formerly free. The functions of all the other organs, thoracic and abdominal, are normally performed, and has now perfectly recovered motion and sensation of the left side.

In respect to the condition of his eyes, there was nothing worthy of note excepting the slight amblyopia and the hemiopia. Two objects held before his eyes at fifteen inches distance, are distinctly seen by both eyes; upon fixing vision upon the left (to him) object, and moving the right object to his right, it is seen throughout the normal range; but fixing vision as before, upon the right object, (as presented to him) and removing the left object to his left, for the first three and a half inches it is seen, it then seems to enter a shadow, a penumbra, which appears gradually to increase in density as the object moves, till it entirely disappears. With the ophthalmoscope, all the dioptric media were found transparent, the details of the fundus distinctly seen and clearly defined, and the vessels of normal size and appearance. No glasses seemed to ameliorate the amblyopia.

The ophthalmascope demonstrates that the retina is not at fault. The patient states that only *one half* of objects are unseen, and that this blindness exists on the same side in both eyes. Anatomy, according to the generally accepted (not in-

dubitably proved) theory, informs us that the right optic tract is distributed to, or is in connection with the right half of each eye; *i. e.* the temporal side of the right, and the nasal side of the left eye; and that the left optic tract is in connection with the temporal half of the left and the nasal half of the right retina. Our patient is blind towards his left side, consequently that portion of the retina which should receive the images of external objects from that side is the part affected. The right optic tract is in communication with these portions, therefore this tract is the one involved and incapacitated for transmitting the visual impressions received upon those portions of the retina with which it is in anatomical relation. Pressure is the more probable cause and a pressure that is capable of remission.

Again, our patient has suffered from temporary impairment of sensation and motion in the left side and extremities. Since the decussation of the nerves of sensation and motion takes place in the medulla oblongata, it follows that this paresis is due to some lesion to the right optic thalamus and to the right corpus striatum. This is doubtless in consequence of pressure in which the right optic tract is involved, as in one common cause; and this pressure may be occasioned by a tumor or by a serous or hemorrhagic effusion. If to a tumor, it may be, and to my mind it is, caused by a gummy tumor, a sequence of the specific virus with which he was affected twenty years before, or possibly by a syphilitic node. The symptoms manifested are consistent with this diagnosis, for it is well known that if a cerebral tumor is very slow of development, the brain substance, and also the nerves may accommodate themselves to its growth, and there may only periodically arise such compression of the vessels at the base of the brain, which, setting up disturbance in the intra-cranial circulation, will give rise to ephemeral hemiplegia, ischæmia and fainting or epileptoid fits. But symptoms of paralysis of the cerebral nerves may supervene, if the tumor pervades, irritates or presses upon the nerve substance, or if the vessels become compressed and the nutrition of the nerves impaired.

Hemorrhagic or serous effusions into the third ventricle, or at the origin of the optic nerve, from the optic thalamus may

produce the same effects. One of these effusions *may* have occasioned the phenomena presented by our patient. The cerebral substance adjacent having accommodated itself to the slight pressure produced, or absorption having rapidly taken place, the symptoms presented subsided. Upon these interpretations of the symptoms my treatment was predicated; the removal by absorption of the cause of pressure, whether from a gummy tumor, the consequence of syphilis, from passive effusion, blood or serum from basilar periostitis; from effusion, the product of basilar meningitis or tumor of the pituitary gland.

Hemiopia, as before intimated, *may* also be the result of softening of the brain, occasioned by an atheromatous condition of the basilar arteries. Hemiopia being but a symptom, the treatment must be specially directed to the primary cause, remedial means of a tonic character must be vigorously prosecuted. In this case full doses of pot. iod. were administered alone and in combination with pot. brom., and subsequently hydg. bichl., Turkish baths, and the use of galvanism. Abstinence from the use of alcoholic liquors and of tobacco, also from all sources of excitement incident to the conduct of his business; avoidance of all circumstances calculated to excite passion, anger or resentment; and for the purposes of respite or recreation, recommended a journey to Europe or to California. By these agencies, continued during the period of two months, the area of vision, at *fifteen* inches distant, increased from three and a half inches to sixteen inches, a result highly satisfactory and encouraging.

As regards vision, the prognosis is in all cases extremely unfavorable, for in spite of the best directed efforts, the hemiopic darkening of the field usually progresses in a relatively short time to complete amaurosis. But if the hemiopia on the same side of both eyes is not accompanied by atrophy of the corresponding half of the optic papilla, it is to a certain extent favorable; that is, it is seldom followed by complete blindness, especially when it has existed for some time unchanged. Stellwag states, "It is not uncommon to see a partial or entire clearing up of the darkened portions of the visual field. It is

even observed, although rarely, in tumors of the base of the brain and of the cerebral structures. It is quite frequent in cerebral hemorrhages. Such an amaurosis in the beginning, generally extends over the whole tract of one or both of the roots of the optic nerve, with the absorption and shrinking of the clot, it generally diminishes, and is generally limited to the half of one or both retinæ or less, or may even wholly disappear."

No. 620 Locust St.

COLOCYNTH AND COLOCYNTHIAN REFLECTIONS.

By Dr. James I. Tucker, Chicago.

It is well known that many of the medicaments in common use at the present day, come down to us as a bequest from antiquity. Among these is one of the *Cucurbitaceæ*, namely, the fruit of the *Citrullus Colocynthis*, which was frequently employed medicinally by the ancient Greeks and the Arabians. It is used at present by the physicians of Great Britain and the United States on account of its drastic-hydragogue properties. It is moreover limited to this use, and these properties are so well understood, that we are obliged to observe the utmost caution in its administration, lest it produce violent griping, nay, more, bloody discharges, inflammation and even death.

Colocynth is administered with us only in the form of pills; hence, we find as the only officinal preparations in our pharmacopœia, the powder, or solid extract, which forms a constituent of compound pills, or a mass from which pills may be compounded. By a careful observation of the physiological action of colocynth we discover that it has an affinity for the large bowel especially, though it reflexly, or otherwise, increases the general peristaltic movements. The tincture of colocynth is not found among our preparations, but it has for a long time held an honored place in the German pharmacopœia. How it is used by the Germans I am not well informed;

but the extreme materialistic views of many of the German physicians, lead me to believe that they would not, as a rule be satisfied unless they should see the feculent discharges, as an evidence that they had accomplished something which would endure the most rankly objective therapeutico-optical scrutiny.

In spite of this, I am going to announce a fact, which I am able to fortify by an array of cases that have come under my personal observation. I state without fear of successful controversion, that *colocynth will allay the pain caused by excessive peristaltic action, better than any drug in use, not excepting opium; providing it be used in the proper dose.* I refer to simple, but nevertheless distressing idiopathic pain, so to speak; pain due to excessive stimulation of the nerves engaged in keeping up the harmonious rhythm of the vermicular movement of the bowels. In such cases I employ not the solid extract, but the *tincture;* and I use the tincture in such small quantities that I expect to meet a large amount of incredulity growing out of *a priori* conclusions. But why, pray, if ipecac in minute doses can allay nausea and vomiting, may not colocynth in small doses allay the very griping which, in large doses, it is capable of producing? I use only just so much of the tincture as to render the excipient—generally water—slightly bitter. In teaspoonful doses, repeated *pro re nata*, I have seen the most speedy relief from very violent griping. Now, since therapeutics is the ultimate aim of classical or humanitarian medicine, I hope that much more attention will be paid hereafter to the hitherto unutilized virtues of drugs which have been supposed to have but a very limited applicability. It will be found that our methods of ascertaining the therapeutical possibilities of drugs are lamentably meagre, and without honest original research we bow too willingly to the shrine of suppositious authority. The truly medicinal properties of many of the drugs in common use lie latent, dormant and neglected, ready at any time to grow and bud and blossom, like the germinal principle, which was at last discovered in the wheat-grains found in the Egyptian catacombs. It is the duty of every practitioner to

contribute the results of his experience to the common store of knowledge; not, indeed, to tell us what misery he can occasion by doses of this or that, but how far this or that has contributed, by a careful artistic application to alleviate the sufferings of mankind. The basis of observation has been hitherto very inadequate; but the time is coming, nay, is already here, when the action of drugs may be ascertained with mathematical accuracy. I mean by the neurological method of therapeutics. To this fact, and to the other virtues of the bitter cucumber, which are an illustration of this fact, I now endeavor to call the attention of the medical profession. *Therapeutics, resting on a neurological basis, is to be the therapeutics of the future.*

Clinical Reports.

COOK COUNTY HOSPITAL.

SERVICE OF DR. H. A. JOHNSON.

[Reported by R. Park, House Physician.]

A Case of Pericarditis Suppurativa.

James Kennedy, Act 45. Admitted June 4th. Patient contracted syphilis twenty-two years ago, but no secondary or tertiary symptoms that he can recall followed. Aside from this he has always enjoyed good health, although addicted to the use of stimulants. Five days ago after a hard day's work he exposed himself to cold while perspiring freely. Soon after he had a chill, followed by fever, sleeplessness; nausea and loss of appetite. The next day he began to cough, and suffered from general malaise. The third day he expectorated a tenacious, white sputum; most of the other symptoms having in the meantime subsided. Since then the cough has been aggravating, expectoration more profuse, and the act of coughing has given considerable pain.

He is large, muscular, well nourished, face flushed, skin hot and dry, pulse 100, temp. 102°, resp. 30. The bowels are

very costive. Physical examination gives the following notes: —chest well formed, expansive movements good, respiration hurried and jerking; percussion resonance good over the entire chest, vocal resonance normal; dry, coarse rales on both sides, best marked in right mammary region and vicinity. No friction sounds; heart sounds muffled and feeble, but normal so far as can be known.

He was given a general tonic and laxative treatment, with an anodyne expectorant.

On the 10th the following note was made: Patient's countenance has a peculiar, wild, staring appearance; tongue lightly coated, pulse 102, face and body bathed in profuse perspiration, bowels as before.

14th. Patient mutters and talks constantly during sleep, which is very much broken. Sweats profusely, circulation very weak. Stimulants were exhibited p. r. n. Without giving the daily notes *verbatim*, the following will show the progress of the case.

17th. Dulness, feeble vocal resonance and very feeble vesicular murmur over lower half of right chest; exaggerated respiration over opposite side.

18th. Above physical signs intensified; patient much prostrated and suffering from dyspnœa.

19th. Considerable bulging of affected side. Pain and dyspnœa aggravated. The usual treatment for alleviating such symptoms instituted.

20th, 3 A. M. Was called suddenly to see patient. Found him with fluttering pulse and suffering from excessive dyspnœa, face cyanosed, breathing short and hurried, anxious countenance, and bathed in cold, clammy perspiration.

Being first satisfied—by trial with the hypodermic syringe—that there was a collection of fluid on the affected side, I introduced the aspirator needle in the axilla in the sixth intercostal space, and withdrew f ℥ lvi. of sanguinolent serum, which coagulated as soon as exposed to the air. This relieved him very much for the time.

11, A. M. Patient slept for a few hours after the above operation, to awake at eight and rapidly sink. At that hour the

respirations were 41, pulse fluttering and irregular, face cyanosed. Powerful stimulants were administered, but with no effect, and he expired at 10:45 A. M.

Autopsy: 24 hours after death. Face still livid; tissues well cushioned with fat. Upon opening the thorax both pleural cavities were found to contain a considerable quantity (O jss each?) of bloody serum; still no small part of the lung was adherent to the thoracic walls, while the right lung adhered to the diaphragm as well as to the thoracic walls,—in places. Further examination seemed to indicate that these adhesions were not of recent origin.

The lungs presented a few scattered patches of pneumonic consolidation, by no means regularly disposed. In the lower left lobe was found an incapsulated caseous mass which creaked under the knife. The pericardial sac with contents was found to present a mass much larger than normal. On nicking it with the knife pus welled out, and upon opening it further exit was given to about a pint of pus. The heart was adherent to it in many places, and many large organized masses were found. Upon removal of the mass and further dissection the pericardium was found adhering to nearly the entire left heart except at the base, where another pocket of pus was found, similar to the one mentioned above, which was much larger and surrounded the right heart.

A dilation of the aorta just at its origin was found, which would have held a hen's egg. The walls of the heart were much thickened, but the valves were in fair condition. The aorta gave evidence of incipient atheromatous change.

The liver bulged up into the right chest. It was large and, upon section, glistened from the amount of fat it contained. It was of a pale, yellowish-red color. The abdomen contained about a quart of serum. Spleen normal. Kidneys showed atrophy of the cortical substance and fatty degeneration, the pyramids standing out well.

Aneurism of Ascending Aorta; Rupture of Left Auricle.

Lizzie Walker (col.), Aet 45. Admitted May 16th. About a year ago patient began to experience a difficulty in breathing, especially at night. Had been employed for some time previously as a laundress, and had frequently "caught cold."

Since that time she has been annoyed—particularly during inclement weather or her menstrual epochs—with dyspnœa. Often at night she is unable to preserve the recumbent posture, being compelled to sit up in order to inflate the lungs. Apart from the above her general health has been good; she has seldom been unable to work.

On admission she is well nourished, of large frame, and apparently in excellent condition, except that she is troubled with great dyspnœa. Physical examination gives the following points: Expiration prolonged, with a wheezy, jerking inspiratory note, and dry or moist rales over entire chest, the dry predominating. Area of cardiac dullness much increased, the apex being an inch to the left of the nipple. There is an irregular rhythm and a combination of sounds—at the same time muffled and indistinct—which it is difficult to satisfactorily explain.

She was given tonics and the ext. grindeliæ robust.

From the date of her admission her condition seemed to improve; though she was always much oppressed for breath at night or in stormy weather. But on the evening of June 6th, while sitting up in bed, some little incident occurred to arouse her temper (none of the sweetest) and she sank suddenly back, and in five minutes was dead; having been insensible during this short interval,—with tongue protruding and pulse fluttering at first but finally quietly subsiding.

Autopsy; 15 hours after death. Dura mater adherent to calvarium; membranes engorged. Considerable serum beneath pia mater. On opening the membranes and sinuses uncoagulated blood flowed freely; and after cutting the cord and removing the brain it continued to flow in such quantity as to show intense engorgement of the meningeal vessels of both brain and cord. Careful examination and section failed to reveal any rupture or hæmorrhage; but there was found a

marked condition of atheromatous change in all the arteries so far as traced.

Upon opening the thorax, the pericardium was found distorted and enormously distended by fluid; section proved this to be semi-solid, half coagulated blood. The lungs and heart were then removed together; the former were engorged with blood, but no evidences of inflammatory action were to be seen. Careful dissection of the pericardial contents showed a marked roughening and thickening of the serous pericardial surfaces, not of recent origin. The whole mass, heart, clots and all, weighed about ℥lv. After turning out the blood and clots, a rupture of the left auricle was found. Following up this lead an aneurism of the commencement of the aorta was revealed, which also involved the integrity of the heart wall and inter-auricular septum. The right heart was very much hypertrophied, the left very much dilated. The cavity of the aneurism must have been about the size of a black-walnut. Patches of atheroma, with occasional calcareous patches, were seen all along the course of the thoracic aorta.

The abdominal viscera were normal.

In the uterus—which was of normal size—were found several small fibroid tumors, the largest of which was not more than 2 cm. in diameter. A similar but much smaller growth involved one extremity of the right ovary.

SURGICAL DEPARTMENT.

Service of Prof. Moses Gunn.

Pott's Disease of the Spine.

W. C. Irish, aged 22, a railroad laborer. This patient, in appearance robust and well nourished, of medium height, but stout and compact built, states that about four years ago he first had a pain in his back, without having received any injury that he can remember. At the same time he had pains in his chest and stomach, but having caught a slight cold paid no attention to them. About a year after this (the pains con-

tinuing), he noticed a prominence on the back bone at the seat of the pain. The pain increased very gradually, for he continued at his work, which required him to lift heavily, until last winter. Since then locomotion has become difficult and his gait unsteady, from disturbance of the nervous distribution, and as the recumbent posture gives him ease he has confined himself to bed. The prominence which you notice, and which gives an angularity to the spine, is about the size of a walnut and has remained stationary, so the patient states, during the past year. The patient's appetite is good, having been so from first to last. His father and mother are living and well, and no hereditary taint or predisposing dyscrasia can be discovered.

This is a rare case of Pott's disease of the spine, being somewhat out of the usual way, as the patient's health has remained good and he has worked a great part of the time. That circumstance tells us that his health and condition are prime, and that this cannot be a case originating in a scrofulous or vitiated constitution. If the patient had been scrofulous he would hardly have continued at his work, lifting heavily as it required. This rules out scrofula and throws us upon the probability of some mechanical origin.

I have frequently called your attention to the premonitory signs of pectoral and abdominal pains, as exhibited in this case, advising you that in a child who has these symptoms, which are often attributed to a cold, they should lead you, in the absence of pulmonary or abdominal lesion, to suspect disease of the spine.

The singular part of this case is that it should have gone on to softening of the bodies of the vertebræ, with so few of the usual signs and so little constitutional disturbance.

The patient, now for the first time, calls attention to his testicles which are swollen, but not tender. He says he first noticed the swelling coming on gradually about a year ago. This throws anything but light upon the subject, and gives a coloring of scrofula to the case.

He expresses himself as experiencing comparative ease when held up and the head and shouleers are braced back, from the

throwing of weight off from the bodies and upon the articular process of the vertebræ—the hint upon which mechanical support is founded—and he is advised to wear the usual apparatus for these cases. His nutrition is so good that were it not for the swolllen testicles I would have no inclination to advise any medication, but as it is he will be put upon cod liver oil, iodine and tonics.

NOTES FROM DISPENSARY AND PRIVATE PRACTICE.

Rare Form of Congenital, Multiple amd Monolateral Pigmentary Nævus, having the disposition of Zoster Corporis.

On the 18th of August, 1877, John McDonald, an unmarried laboring man, aged 31 years, native of St. Johns, New Brunswick, applied at the skin department of the South Side Dispensary of Chicago. His stature was rather above the medium height, hair and eyes black, complexion florid. He stated that his father and mother were healthy, and that he had twelve brothers and sisters none of whom exhibited congenital deformity.

Since his arrival at adult years he had always indulged freely in the use of spirits until the beginning of the present year. In 1867 he contracted a gonorrhœa which lasted for three months, and was accompanied by an attack pronounced by his physician to be "gonorrhœal rheumatism." One year afterward a suspicious intercourse was followed by swellings in each groin, unaccompanied by any observed genital lesion, which suppurated and were incised. In three months thereafter, intercourse was again succeeded by suppurative inguinal adenopathy, and an ulcer upon the glans penis. On the third year afterward he again had genital ulcer and non-suppurative swellings in the groin. In 1875, when suffering from an eruption produced by the poison ivy, he was treated by Dr. F. W. Draper, in the Boston City Hospital, and relieved, as he states, by the application of zinc ointment. Soon after he

was treated for blotches upon the face, which were followed by pustules, pronounced by Dr. Chandler to be lesions of secondary syphilis.

In the latter part of July, 1877, after laboring in the grain fields of Sterling, Illinois, he suddenly noticed that his face and hands were "burning hot," and soon became much swollen, little "watery heads" appearing over the affected parts. This led him to apply for relief.

On examination, the exposed surfaces of the body were found to be affected with what seemed to be an induced eczema in the phase of retrogression. The skin of the face was erythematous merely—the swelling described having subsided, while the outer aspect of the upper extremities, and the wrists in particular, were reddened, excoriated and covered with light yellow crusts. The portions of the integument covered by clothing were entirely unaffected, except as mentioned below: the skin being soft and white, and exhibiting no cicatrices except those resulting from the old inguinal incisions. The hair was abundant; there was no adenopathy; the fauces were unaffected, and no trace of syphilitic disease was discernible. It seemed probable that the patient had again suffered from the poisonous effects of the rhus toxicodendron, and such in fact was his own belief. In a few days the cutaneous disease disappeared under the use of an emollient lotion.

The examination of his person led to the incidental discovery of a unique deformity which he stated had existed from birth, and which, his mother had told him, she had for a long time after he was born, endeavored to remove by washing, on the supposition that his skin was covered with "dirt." Its appearance had not changed since he first began to notice it, and it was unaccompanied by subjective sensations.

The deformity existed exclusively upon the left side of the body, and was produced by the abundant development of uniformly split-pea sized, irregularly square-shaped, discrete and closely packed, pigmentary nævi, varying in color from a light fawn to a deep chocolate, with the exception of the scrotal region, where the moles were larger and of a dull reddish hue.

The flattened summit of each was slightly uneven, elevated above the surface of the integument by about one-eighth of an inch, and in no single instance provided with hair.

Four distinct regions of distribution could be defined as follows :

1. A single line of closely-packed moles, commencing in the axilla, at about one-half inch posterior to the axillary border of the pectoralis major muscle, extended in a gentle curve, through a point one-half inch above the left nipple, to the exact mesian line of the sternum, where it abruptly terminated. These were of a light fawn color, and were the lightest in shade of all displayed upon the person.

2. Over the 8th rib, and beginning at a line dropped from the anterior border of the axilla, a broad ribbon of deep chocolate-colored, and in some places almost black, nævi, densely crowded together, extended in a gentle curve exactly to the linea alba, spreading thence upward and downward, in a vertical line, from the umbilicus to six inches above that point. This T shaped band was, on an average, one and one-half inches in width.

3. Commencing over the latero-posterior region of the trunk, five inches from the lumbar spines and one and one-half inches above the dorsum of the ilium, another ribbon, composed of closely-packed moles, extended horizontally to an imaginary line dropped from the anterior border of the axilla. This was the sole region where the hypertrophic growths did not fully extend to the median line of the body. They were of a deep fawn color, lighter in shade than these last described.

4. Beginning at a point about midway between the anus and the left tuber ischii, an irregular line of nævi extended forward and upward over the left side of the penis and scrotum, where they were disposed without apparent order. These were, as has been stated, larger than those upon the trunk, being many of them of the size of a small bean, and displaying a dull red hue. In no instance was one discovered on the right side of the raphé of the scrotum, nor upon the right of the mesian line of the penis. The nævi upon the penis were smaller and much less pigmented than those upon the scrotum.

All the extremities were free from the deformity.

Viewing the patient at a distance sufficient to remove the distinction of individual nævi, and observing merely the lines and areas traced by the hypertrophy, the appearance was highly suggestive of zoster of the trunk. The patient stated, moreover, that his former physicians had declared that he was affected with "shingles."

Excision of a portion of the hypertrophic growths for further examination was not permitted.

According to Hebra, the existence of pigmentary moles is rarely established at birth. The history of the case here reported is quite conclusive as to the congenital character of the lesions, and their distribution indicates, very distinctly, that the affected surfaces corresponded to the regions of skin supplied by the anterior branches of the lateral cutaneous nerves. The fact that certain maternal nævi are due to intra-uterine perturbations of the nervous ganglia of the fœtus, was first observed by von Baerensprung in 1859[1], and embodied in a paper by the same author in 1863. An interesting communication by Dr. Roberto Campana of Naples, to the *Italian Journal of Venereal and Skin Diseases* for October, 1876[2], establishes, further, an intimate connection between the location of *vascular nævi* and the territories supplied by various cranial, cervical, brachial, dorsal and lumbar nerves. The fact of such intra-uterine involvement of the nervous ganglia of the fœtus will at present be scarcely disputed; but I have been unable to find a reported case which, in its general features, resembles that described above. It, however, most nearly corresponds to an observation made by Martin Arndt in 1839. In the report made by the latter, it appears that the left side of the body was exclusively affected, pigmented, hypertrophic nævi, isolated and occurring also in bands, having been observed upon the neck, the shoulders, the clavicle, the upper arm, the elbow and the thorax. In the locality last named, three parallel bands of deeply pigmented nævi extended to the median line of the body, and there

(1) Nævius unius lateris Von Baerensprung, Ann. d. Char. Krank., Bd 11, Sept. 2, 1863, p. 91, et seq.

(2) Giorn. Ital. d. Mal. Ven. e. d. Pel., Oct., 1876; F. 5, p. 257.

coalescing, spread in a vertical direction to the umbilical cicatrix.

The latest reported instance of such hypertrophy was observed by De Amicis, in 1876[1], upon the person of a dark brunette, aged 17 years. But here the entire cutaneous surface was covered with disseminated blackish-brown pigmented nævi, the extremities, including palms and soles, being invaded. The deformity was not described as congenital.

JAMES NEVINS HYDE.

CHICAGO, August, 1877.

A Case of Puncture of the Intestines for the Relief of Over-distension with Gas.

In the JOURNAL AND EXAMINER, Oct., 1876, I reported a case in which I had punctured the bowel for the relief of enormous distension, with marked beneficial results.

I will now give a short history of another case where the same treatment was adopted, and though there was ultimately an unsuccessful issue, it in no wise reflected on the beneficial results of this treatment.

I was called, on the 6th of July, to see D. A., aged fifteen years. He had been playing ball a couple of days before, and, while heated from this exercise, drank freely of cold water.

On examination, I found his pulse 108, tongue thickly coated, creamy-yellow, tenderness over the whole abdomen, but more particularly in the region of the sigmoid flexure of the colon, persistent vomiting and considerable pain. I diagnosed the case as one of colitis, and ordered some powders of morphine and bismuth, warm poultices to be applied over the abdomen. I visited the boy daily, and although the pulse rose to 120 with tympanites and a more extended area of tenderness by the 13th, there was a general amelioration of the morbid symptoms, and I regarded him as convalescent. On

(1) Lo Sperimentale, Mar., 1876, p. 312 (Archives of Dermatology, III, II, p. 158.)

the evening of 14th I was sent for in haste to see him. The messenger said he was "taken with cramps in his bowels," and was suffering great pain. Being otherwise engaged, I did not see him that night; but ordered ¼ gr. morphia every two hours to relieve pain, and poultices to be re-applied. Next morning, on visiting him, I found his pulse had risen to 120, and was feeble; tympanites had increased, so that the distension was oppressive; pinched expression of countenance—in short, all the symptoms indicating general peritonitis, which, in fact, was the case. I ordered the morphine and poultices to be continued; but he gradually grew worse, so that by the morning of the 17th his pulse had risen to 140, and was quite feeble. The distension was so great that he had great difficulty in breathing from the pressure on his lungs; the pupils were dilated, skin beginning to get cold, and loss of nervous sensibility, indicating approaching collapse. I had previously determined that, all other means failing, I should resort to puncture and directly liberate the pent-up gas, and I thought the time had now come when it would be proper to do so. Accordingly, I inserted a hollow needle in the region of the transverse colon, liberating a quantity of very offensive gas. I again inserted the needle in the epigastric region, with the effect of permitting the escape of a much greater quantity of gas than from the first puncture, and very sensibly diminishing the distension. *His pulse fell eighteen beats per minute before I left the house*, and the distension never afterwards rose to the same height. Next day his pulse was 118, and tympanites considerably reduced. He continued to improve for several days, when he had some diarrhœa and fever; bnt these symptoms were successfully combatted without much difficulty. He now progressed slowly towards recovery, so that by the 3d August he was able to sit up. By this time his tongue had become clean, and the pulse had fallen to about ninety, which, considering his emaciated condition, was fair. His appetite now became ravenous, and I duly cautioned his attendants not to permit him to eat much at a time, and prescribed the food which I considered best suited to his condition. Notwithstanding my care in this

particular, on the evening of 9th August, he was permitted to eat heartily of "hash," composed of potatoes, onions, beef, etc. Some four or five hours after partaking of this combination, he was seized with violent pain in the bowels, accompanied by vomiting; and in his debilitated condition, he made but little resistance, so that by the next day evening his condition was hopeless, and he died the same night.

I publish this case because I think it is of the utmost importance that this treatment of puncturing the bowel in case of distension, should have a more extended trial. Heretofore our efforts have been limited to fomentations and internal remedies, and these failing, as they so often do, there is no reason why it—i. e. puncture—should not be tried, especially as it has been demonstrated, over and over again, that it is not such a dangerous procedure to puncture the peritoneum. This boy would undoubtedly have died on July 17th, but for the measures which were taken.

E. W. Lee, M. D.

417 W. Jackson St., September, 1877.

Electricity in the treatment of opium poisoning.

At 7 o'clock a. m., March 27th, I was called to see Mrs. S., aged sixty-five years, who was suffering from excruciating spasmodic pain in her stomach, accompanied by frequent belching of gas. She had been subject to such attacks and accustomed to the use of opium for their relief, though she had not found it necessary to take any for more than a year. She had at hand a solution of the deodorized tincture of opium, as well as paragoric, so I administered 60 drops of the former and two drachms of the latter, with a drachm of the bicarbonite of sodium, after which I returned to my office. I visited the lady again at 8.30 and found her still suffering and almost delirious from pain, anxious to find relief in death. I prescribed a drachm of ipecacuanha as an emetic, which failed to vomit, and in fifteen minutes she was asleep. I was called into the country, aud did not return until 2 p. m., when I was

hastily summoned to see her, because she had not been awake since 9 a. m., and could not be aroused. If there is ever a time when a physician realizes his responsibility it is when a patient is dangerously narcotized and he has ordered the medicine which may have produced it. I attempted to administer strong coffee and stimulants, of which she could swallow but little, and within an hour all efforts in this direction were useless, as no manipulation would induce her to swallow. Her respirations at this time were six per minute; pulse, fifty and weak; pupils contracted; skin relaxed, with a clammy perspiration and stertorous breathing. In my dilemma, I resolved to try electricity. I applied the battery at 4 o'clock, and repeated it every 15 or 20 minutes, using it for about five minutes at a time, directing the current from the back of the neck and along the spinal column to the feet, and also to the breast, stomach and bowels; as near as possible along the course of the pneumogastric nerve. The attendants frequently rubbed the surface of the body and limbs with strong mustard and water. The effect of the battery was the drying up of the perspiration and a warm feeling of the skin. The throat was frequently cleared of mucus by a swab. After eight hours persistent treatment she moved one of her hands, and in an hour could be induced to swallow, and during the next two hours we gave a pint of strong coffee and half a pint of gin. She made a good recovery, and in a week was able to be up again, and is now engaged in her usual avocations.

Physicians are sometimes undeservedly censured, and in this case, had Mrs S. died, I should have been blamed for causing her death. The facts in the case, however, are that Mrs. S. had taken, at 3 o'clock in the morning, an ounce of the preparation prescribed; that is, half an ounce of the opium solution and half an ounce of paragoric, a fact of which I was then ignorant. Owing to the congested condition of the stomach, the medicine was not absorbed until I gave the ipecac, which relaxed the organs and the opium soon produced a dangerous narcotism.

WYONET, Ill. F. C. ROBINSON, M. D.

Reports of Societies.

PROCEEDINGS OF THE AMERICAN DERMATOLOGICAL ASSOCIATION.—FIRST ANNUAL MEETING.*

The Association was called to order at 10 A. M., Sept. 4th, in the Club Rooms of the Cataract House, Niagara Falls, by the President, Prof. James C. White, of Boston. The Report of the Council was read by the Secretary, Dr. L. Duncan Bulkley, of New York. Several names were then proposed for active and honorary membership; and an auditing committee appointed, consisting of Drs. Wm. Brodie, of Detroit, and I. E. Atkinson, of Baltimore.

The President then read his annual address, which contained an interesting historical sketch of the progress of dermatology in America, an eloquent tribute being paid to the labors and teachings of Prof. Hebra, of Vienna, and to their influence especially upon American students abroad. It was in consequence of these teachings that dermatologists had learned to observe diseases of the skin, just as naturalists learn to observe; and, by the aid of the abundant material in dispensaries and hospitals, studied in accordance with the new and better method, it had come to pass, finally, that the men who once shone with reflected light, are now themselves contributors. Looking at the character of the instruction given in dermatology in American medical schools twenty-five years ago, we find a decided improvement noticeable in 1871, when, though no American treatises had been published on the subject, still there was much work and observation, and a promise of better things. To-day we have, in many of the schools, special instruction given, and the only journal specially devoted to dermatology in the English language, is published in this country. He (the president) had received 39 replies to a

* In the compilation of this report, I have simply enlarged the excellent report o Dr. Edw. Wigglesworth, (published in the Boston Med. and Surg. Journal, Sept. 13, 1877,) by the addition of notes taken by myself during the sessions.—J. N. H.

circular issued by himself, asking for the number and title of published contributions, and the journals in which they have appeared. These thirty-nine replies reported 258 contributions on dermatological subjects, and 54 on subjects connected with syphilis; in all 312. There were also translations, reviews, analyses; two special treatises by American authors; one atlas. The success of the N. Y. Dermatological Society had undoubtedly contributed to the result.

The objects of the Association are: 1. The affording of opportunities for a more intimate personal acquaintance among American dermatologists, thus obviating the tendency to harsh judgments upon necessary differences through ignorance of personalities. 2. To average the varying views upon ætiology and treatment, by oral discussion in each others' presence, and thus to elaborate a common basis for work. 3. To ascertain by observant study and by the collection of statistical data, the peculiarities of cutaneous diseases at present existing in this country, the establishment of a standing committee for this purpose being desirable, and to investigate new diseases, such as leprosy, which seems to have made its appearance in the South. 4. The establishment of a common nomenclature in dermatology. 5. To foster the interests of dermatology in its general relations to the medical profession and to the public.

The objects of the Association show the need of its existence. There are peculiar difficulties and very inappropriate rewards in this specialty of medicine. The medical profession has yet to learn that diseases of the skin are like other diseases, all being subject to the same laws, and all affecting organs composed of similar tissues. Physicians either lack interest in these maladies, or, regarding them as incurable, leave them to chance; or, again, pandering to popular prejudice, talk of "humors," and of diseases "coming out," or "striking in," thus frightening patients into resignation; or will unjustifiably undertake the treatment of maladies of which they are ignorant, merely because they anticipate less evil from mismanagement than they would in the care of maladies of the eye and ear, for instance. Even physicians who consult

a specialist, seem surprised that these diseases subsequently remain apparently as intractable as before, forgetting that the pathological conditions may vary from day to day in an organ so exposed, thus calling for a coincident change, perhaps temporary only, in the plan of treatment. There is a necessity for special teachers, for purposes of education in medical schools. There exists the need of better opportunities for instruction by means of special clinics, either in special hospitals, or in special wards in established institutions. The neglect of existing institutions to do common justice to the patient suffering from these diseases, is an outrage against reason and humanity.

On motion of Dr. Bulkley, a committee was appointed to consider and report upon the recommendations contained in the address, consisting of Dr. Heitzmann, of New York, Dr. Hardaway, of St. Louis, and Dr. Wigglesworth, of Boston.

A paper upon Acute Conditions of Disease excited by the iodide of potassium, by Dr. A. Brooks, of Chicago, was then read out of turn. The writer called attention in it, not to the various cutaneous lesions which the drug is capable of producing, but to varieties of arthritis, iritis and fever, which he believed, were sometimes induced by it.

Dr. I. E. Atkinson had seen affections of several of the cranial nerves induced by the drug, and in one case, erythema of the buccal mucous membrane. He had given two drachms ter die for a month, in conjunction with the biniodide of mercury.

Dr. R. W. Taylor had seen acne, arthralgia, with pain in the sclerotica and conjuctivitis, follow even small doses; after large doses, he had noticed only dermatic lesions, even bloody pemphigus, but without rise in temperature. He had given, by degrees, as much as twelve drachms per diem, for many days; in one case, 20 drachms for a sciatica due to syphilis, which amount, however, produced less effect than 14 drachms combined with two drachms of the bromide of potassium.

Dr. Hardaway had seen syphilitic albuminuria disappear under similar doses.

Dr. L. A. Duhring regretted that the paper had not discussed the cutaneous lesions induced by the drug, and narrated the case of a lad, who applied for treatment of an oozing and crusted patch of infiltrated eczema upon the fore-arm. There was also a vesicular and bullous eruption upon the wrists, fore-arms, backs and palms of the hands. The vesicles were from pin-head to pea-sized, elevated and in places confluent, resembling variola, though there were no pustules. The whole picture was a *fac simile* of Tilbury Fox's plate of dysidrosis. The eruption appeared the day after taking three or four ten grain doses of the iodide. The vesicles oozed when punctured, but did not collapse, filled as they were by a gelatiniform secretion, exactly resembling a grain of boiled sago, when viewed from without. There was no itching, œdema, nor febrile disturbance. The eruption dried up in a week, without treatment. The eczema was not influenced by the drug.

Dr. Van Harlingen had also seen the case and added that the eruption was essentially upon the extensor surfaces, becoming more scattered as it extended up the arm. The ezcematous patch was about 4 by 3 inches, and upon the flexor surface. The vesicles were umbilicated. The pulse quite normal. After the symptoms had disappeared, the drug was again administered for the sake of experiment, and the vesicles immediately re-appeared.

Dr. J. N. Hyde had given one and one half drachms *ter die* for a week in one case, and added that the writer of the paper under discussion, had stated in his presence, that he had administered one thousand grains *per diem*. The speaker referred to the fact that often a small or moderate dose of the iodide, would produce the phenomena of coryza, &c., while the larger doses mentioned, were occasionally very well tolerated.

Dr. W. A. Hardaway had seen intense urticaria, even purpura urticata upon a tuberculous patient, who had taken half a grain of the iodide.

The first paper of the afternoon session was read by Dr. L. D. Bulkley of New York, and entitled, On the so-called Eczema Marginatum of Hebra (tinea circinata cruris) as observed in

America (1). Dr. Bulkley's treatment was by sulphurous acid.

Dr. Heitzmann considered the disease the same in this country as in Vienna. He did not consider the success of the treatment, so far as time was concerned, any greater than by other methods. He had repeatedly cured cases in a week by means of Wilkinson's ointment spread upon rags and closely and continuously applied.

Dr. Duhring remarked that Eczema might be found in the region attacked by the so-called Eczema Marginatum, and should bear its own name. That tinea circinata might also exist there and ought to retain its own name; that, furthermore, the two diseases were, from the first, distinguishable from each other. In Philadelphia the disease assumed a milder type.

Dr. R. W. Taylor remarked that he had observed one of the cases reported, which certainly seemed to be a marginate form of eczema, merely. The itching was severe, the margin was defined by glazed papules, the affected integument was of a violaceous brown color, and there was coexistent eczema manuum. He had not discovered the parasite.

The president remarked that he recognized three distinct varieties of disease in this locality, having the general features described. 1. There was true ringworm—the development of the *tinea tricophytina* being the same here as in Europe. 2. Chronic and advanced cases, where the two diseases were combined, the eczema becoming subsequently inoculated with the parasite, or the development of the latter inducing an eczema, as it would in patients subject to this affection. He had seen cases of "Burmese Ringworm" where, after destruction of the parasite, the eczema only died out very gradually. 3. Cases of eczema, where no parasite existed. The margin of the affected patches was defined by an elevated border. There was no resemblance here to either tinea favosa or tinea versicolor. The disease is slow of cure, and although Wilkinson's ointment is very valuable, he had never obtained from it the speedy effects claimed by Dr. Heitzmann.

A paper on the Pathology of Seborrhœa was then read by

(1.) This paper will appear in full in the November No. of the CHICAGO MEDICAL JOURNAL AND EXAMINER.

Arthur Van Harlingen, M. D., of Philadelphia. The following were the author's conclusions:

1. The sebaceous secretion is derived from fatty metamorphosis of the enchyma cells of the sebaceous glands. These cells are homologous with those of the stratum mucosum of the skin. They have nothing in common with the cells of the horny layer.

2. Seborrhœa is a disease of the sebaceous glands, characterized by the pouring out of an increased quantity of sebum, more or less altered in chemical and physical composition. In comedo and seborrhœa sicca, properly so called, the secretion is condensed to a fatty consistency, while in seborrhœa oleosa it remains in an oily state; in each of these affections, however, microscopic examination shows epithelial cells in a state of more or less complete fatty degeneration and breaking down into granular debris. Horny cells are only found adventitiously.

3. Certain forms of disease heretofore commonly classed as seborrhœa sicca, should properly be removed from the category of diseases of the sebaceous glands, since the pathological product in these cases is not sebum, but epithelium from the horny layer of the skin. Any sebum which may be present is a mere accompaniment of the epithelial product. For these cases the designation pityriasis, or pityriasis simplex would seem appropriate.

Dr. G. H. Fox referred to a case where the whole glans penis was enveloped as with smegma, by an apparently epithelial growth, which could be scaled off in laminæ.

The president spoke of this condition as one of a commencing horny growth, the development of epithelial matter being accompanied by enlargement of the papillæ, and followed by horn formations. For two years he had had such a case under observation while developing. At first laminæ could be removed.

Dr. G. H. Fox then read a paper upon molluscum contagiosum, based upon the observation by himself of twenty-six cases. Five per cent. of these occurred upon the male genitals. He believed the affection to be rare in private practice; and called attention to its frequent co-existence with

warts; this co-existence being of such frequent occurrence that it is to be regarded as more than an accident. He suggested that the term molluscum simply, should be applied to the disease, and that the affection designated as *molluscum fibrosum* be termed fibroma, thus clearly distinguishing the two.

Dr. Heitzmann stated that he had examined two such cases under the microscope, and found epithelial elements in a state of fatty degeneration, containing the molluscous bodies of Virchow and Rindfleisch, which are supposed to be the bearers of contagion. He had seen molluscum occurring upon the thighs of women after leucorrhœa, just as papillomatous warts may arise by contact with the secretion of blennorrhagia, of which he had seen one case upon the face. The sebaceous glands, the root sheaths of the hairs, etc., may be at times in such a condition that irritative stimulation is alone needed for the production of the new growth. Dr. Heitzmann recognized the relationship between molluscum and common warts, and did not regard the former as contagious. Recent investigations at Vienna also tend to disprove any contagiousness.

Dr. Hyde, referring to Dr. Heitzmann's remarks, stated that the vegetations induced by fluids of a blenorrhagic nature, did not necessarily result in a single individual from even the most virulent of secretions. It seemed as though the process of "acclimatization of the penis," first described by Ricord, often influenced the development of these growths. In certain cases an individual who has had several attacks of blennorrhagia, will find the most luxurious development of vegetations first occurring after contact with secretions, to which he is unaccustomed; and which are not nearly so acrid as those to which he had been formerly exposed.

Dr. Duhring spoke of the rarity of molluscum among the upper classes in Philadelphia, where, however, it did occur. He had rarely met with well developed cases in children, though he had seen scores where the appearances were ill developed, or in an abortive stage, the size perhaps of a pin's head.

Dr. E. Wigglesworth, of Boston, was also skeptical in regard to the contagiousness of the disease in question, although he

could say, in answer to Dr. Duhring's remarks, that he himself had been at one time the subject of an attack of molluscum, occurring, curiously enough, but a short time subsequently to his having expressed with his thumb-nails the contents of several molluscous papules, for purposes of microscopical examination, from a patient in dispensary practice. In his own case the individual lesions had been found successively, and upon various parts of the trunks and limbs.

Dr. Wigglesworth's paper upon Faulty Innervation as a factor in Skin Disease, was then read by title only, owing to illness upon his part.

A short paper by Dr. Dyce Duckworth, of London, upon the Treatment of Severe Bed Sores, was next read by the secretary, and the Association adjourned.

SECOND DAY, SEPTEMBER FIFTH.

After the reading and acceptance of the Report of the Treasurer and Auditing Committee, the Report of the Committee on the President's Address was received and considered. In accordance with the reccommendations contained in the latter, the following committees were appointed: on *Nomenclature*: the President, *ex officio*, and Drs. Duhring, Taylor, Wigglesworth and Heitzmann; on *Statistics*: Drs. White, Bulkley, Hyde, Atkinson, Hardaway, Yandell, Van Harlingan and Brodie. On motion it was agreed that the bibliographical statement prepared by the President be incorporated with the transactions of the Association. The following officers were elected for the ensuing year:

President—James C. White, of Boston. *Vice-Presidents*—L. D. Bulkley and C. Heitzmann, of New York. *Secretary*—R. W. Taylor, of New York. *Treasurer*—I. E. Atkinson, of Baltimore.

The following were chosen honorary members of the Association by unanimous vote:

Prof. F. Hebra, of Vienna; Prof. Erasmus Wilson, of London, and Prof. Hardy, of Paris.

The following named gentlemen were chosen active members:

Dr. W. H. Geddings, of Aitken, S. C.; Dr. Silas Durkee, of Boston, Mass; Dr. F. P. Foster, of New York, and Dr. Sam'l. Sherwell, of Brooklyn, L. I.

Dr. Hyde announced a brief paper describing a "rare form of multiple, congenital and monolateral pigmentary nævus," and received permission to present it.

Dr. Campbell, of New York, then read a description of a Case of True Prurigo (of Hebra).

Dr. Duhring had seen this case, and but one one other in this country, a case shown him some four years ago by Dr. Wigglesworth, occurring in Boston. General discussion showed that none of those present had ever observed more than two cases, and these, for the most part, were the same cases seen by the various physicians.

Dr. Wigglesworth, in addition to the case alluded to by Dr. Duhring, the first case ever published in this country, reported in full in the January No. for 1873, of the *American Journal of Syphilography and Dermatology*, had seen another case occurring upon a farmer, where the formation of papules, the thickening of the skin, the buboes in the groins, the locality of the parts affected, the peculiar appearance to the eye, and to the fingers after rubbing them upon the lower limbs, the sound caused by this, the discoloration, furrows and scratch marks, were all symptomatic of prurigo. The only opposing evidence was the statement of the patient, that the disease did not begin in infancy. The case had, unfortunately, been lost sight of in spite of every caution.

The president had never seen a case of true prurigo in this country, and while, of course, not disputing the fact that such had been observed, still he thought that great care should be taken in not mistaking chronic cases of eczema with much infiltration of the skin and secondary changes, for true prurigo.

Dr. J. N. Hyde, of Chicago, then read a paper upon the Immunity of Certain Mothers of Children affected with Hereditary Syphilis. His conclusions were as follows:

1. That if the possibility of the occurrence of conception without maternal infection be admitted, it follows that direct

infection of the wife by the husband may occur at any subsequent period of the gestation. Hence, the date of appearance of maternal syphilis cannot be urged in support of the so-called "syphilis by conception."

2. That, inasmuch as the blood of the husband is capable of transmitting the disease directly to his healthy wife, the non-contagious character of the lesions exhibited by the former, cannot be urged in favor of his innocuousness during the pregnancy of the latter.

3. That many of the physiological and pathological phenomena of pregnancy, render it highly improbable that syphilis of the mother should exist without external manifestations; there being, further, evidence of the fact, that puerperal and scarlet fevers and erysipelas in the human female, as well as spontaneous vaccinia and equinia, are contagious disorders, connected with, and often originating in, abnormal puerperal conditions.

4. That the mode of development of the fertilized ovum demonstrates the phase of its physiological independence of the maternal organism, the placenta discharging a respiratory function and presenting an effectual barrier against intra-uterine infection.

5. That there is evidence to show that not only trichinæ, but various other poisonous organisms, are incapable of transmission through the placental parietes; and that the proofs of such transmission in the case of the exanthematous fevers, and variola in particular, cannot be considered as fully established.

6. That the full weight of Colles' Law is to be estimated in connection with the question whether the child whose hereditary syphilis is derived from the mother exclusively, is capable of infecting its healthy father; and, if no evidence of this latter can be adduced, a higher law becomes defined; viz., that the child whose hereditary syphilis is transmitted by one parent only, is incapable of infecting either.

7. That, if such immunity be established, it is probably due to the fact that the syphilis-bearing cell element cannot readily be implanted upon the soil from which it sprang—a fact illus-

trated by the infecundity of consanguineous marriages, and the non-auto-inoculability, in general, of the primary lesion of syphilis.

Dr. R. W. Taylor remarked that his own view as to the main question was clearly expressed in his paper upon the subject. He thought that the immunity of the mother was due, not to her infection, but to an influence, resulting from her carrying a syphilitic child, which made her insusceptible to the action of the virus.

Dr. Hardaway called attention to the fact, recently shown by Fournier, that the law of Colles had a double bearing—establishing not only the immunity of the mother, but that also of the child.

Dr. Atkinson believed that the syphilitic virus affected the protoplasm itself, and that it was impossible for the interposition of a membrane to check its progress—as impossible as for any membrane of the body in acquired syphilis, to stay its advance. The discussion was then postponed to the afternoon.

A paper was then read by Dr. C. Heitzmann, of New York, on the relation of Impetigo Herpetiformis to Pemphigus, based upon a case observed by himself.

The first paper of the afternoon was by Dr. W. A. Hardaway, of St. Louis, upon the Lymphatic Theory of Syphilitic Infection, with a new view of the Relation between Chancre and Chancroid, and suggestions for the radical cure of syphilis.

Dr. Atkinson, (having had the floor when the debate upon Dr. Hyde's paper was suspended,) went on to say that since the syphilitic virus existed in blood corpuscles and in lymphatic and spermatic cells, wherever the protoplasm of the body reaches, there the virus may reach. He believed in the law of Colles, considering the mother as already infected, the wall between the mother and the fœtus having been already inoculated by the syphilitic protoplasm nourishing the fœtus. The speaker, like Dr. Hardaway, considered the lymphatic system the medium of contagion. He did not regard induration as the necessary sign of infection. All pus is contagious. When unformed, immature, or less virulent, its element might

enter into the system, carrying the constitutional infection. Formed pus, although syphilitic, caused merely a local lesion, being too large to enter the blood. Could it do so, it would produce disease even more violent than syphilis.

Dr. Heitzmann declared his belief that at no distant day these problems would be all solved by the microscopist. He was now able to detect the difference between healthy blood and that of a scrofulous patient—merely by using his objectives.

Dr. Hyde stated that, the discussion having been prolonged, he would not occupy time further than to state that the question regarding the lymphatic system as that by which infectious material was introduced into the blood-mass, had passed from the domain of speculation and theory, and was an established and accepted proposition. Were other evidence wanting, the recently published experiment of Maurice Reynaud—reported by the latter to the French Academy,—was sufficient to settle the question. Reynaud produced horse-pox by inoculation, and when the vesicles were fully developed, he laid bare a lymphatic vessel passing from the site of the lesions, opened it, established a lymphatic fistula, collected the lymph, injected it into the jugular vein of another horse, and, after a due period of incubation, had the satisfaction of seeing the second animal covered with a superb eruption of horse-pox vesicles.

Dr. R. W. Taylor then read a paper on the Xeroderma of Hebra, being an exhaustive description, with comments, of seven cases of this rare form of disease, observed by himself in New York City. Photographs of these patients were exhibited to the Association, the larger number occurring in a single family of Austrian Jews, residents of New York.

Dr. Heitzmann had observed in Vienna two cases of this affection and subsequently in this country, upon an immigrant, the first case ever observed here, one which had been already described by Dr. Lewin, of Berlin. He had seen the four cases of Dr. Taylor, and since these two others, one being at present under treatment. This last is the case of a male adult, who has had the disease for thirty years. The patches exist upon the face and hands. There is also an ulceration

upon the left cheek, which Dr. Heitzmann regarded at first as rodent ulcer, and upon which he has operated four times with a dermal curette or scraping spoon, the wound in each case healing kindly. Every six months, however, a nodule again forms. Microscopic examination showed the presence of the elements of epithelial cancer, agreeing with the description of Kaposi.

The president called attention to the resemblance of this disease in its early stages to the "morphœa" of Wilson, the erythema and pigmentary deposits being followed by flat atrophy of the skin. Cancerous growths may appear upon many forms of papillary hypertrophy or of pigmentary deposits in other skin diseases as well as in this.

Dr. Duhring spoke of the resemblance of these cases to morphœa or the keloid of Addison, so far as regards the teleangeiectasic spots over limited areas of different parts of the body, lasting perhaps a few years, and then undergoing spontaneous involution. The same category may ultimately include these two diseases as morphœa. He regarded the disease in question as an atrophy. In some cases of morphœa also there are marked changes in the capillaries as well as in regard to pigment.

The paper next presented was by Dr. L. P. Yandell, Jr., of Louisville, upon The Ætiology of Cutaneous Diseases.

In reply to Dr. Bulkley, the reader stated that he had found at times in old cases of eczema capitis in children that a periodicity existed in the pruritus, and that he had been able to relieve this by doses of quinine and other anti-periodics without other treatment; so also in cases of eczema upon the upper extremities. It was more difficult where the lower limbs were affected, especially if varicose veins existed. He regarded acute affections of the skin as due to malaria, chronic ones as arising from a scrofulous taint.

The president referred to the prevalence of acute skin diseases in places where malaria did not occur. The reader, no doubt, observed skin diseases upon patients already suffering from malaria, but in Eastern cities they occurred also, and where no malarious taint was in operation. There have been

only three cases of primary malaria ever observed in Boston. Where malaria already exists it may be a predisposing cause. The question depends, then, upon the relative frequency of diseases of the skin in places where there is malaria and where this does not exist. It would be interesting if Dr. Yandell would furnish such statistics at the next annual meeting of the Association, and show the differences between skin diseases, as observed by him in malarious regions and those elsewhere.

Dr. Heitzmann said that in Hungary, where there is much malaria, a Dr. Poor had advanced this theory some ten years since; while in Vienna, where "scrofula" abounded, this last was regarded as the *fons et origo mali*. Both theories had at that time been disproved and the question settled.

The Association then adjourned.

THIRD DAY, SEPTEMBER SIXTH.

Dr. L. A. Duhring, of Philadelphia, read a Case of Undescribed Form of Fragilitas Crinium, in which the hairs were split throughout their whole length, from the bulb to the free extremity; and showed specimens under the microscope.

A paper upon Two Cases of very late Hereditary Syphilis was then read by the secretary, Dr. L. D. Bulkley, of New York.

Dr. Taylor thought that there was an immunity possessed by the skin after the age of twenty years, and he would distrust all symptoms occurring later than this period for the first time, and refer them rather to acquired syphilis.

Dr. Atkinson referred to a case of syphilis inherited through two generations, reported by him in the *Archives of Dermatology* for January, 1877.

The president had seen atrophy of the dental tissues occur in the second teeth, where no syphilis existed, the case being preceded by severe illness of an acutely inflammatory type. Here the lower teeth, the molars and canines were sound, the lateral upper incisors wanting, and the central ones notched.

Papers upon the Pathological History of Psoriasis, by Dr. A. R. Robinson, of New York; The Auto-Inoculation of Vegetable Parasites, and their Non-Identity, by Dr. E. Wigglesworth, of Boston; and Affections of the Testicle in Hered-

itary Syphilis, by Dr. R. W. Taylor, of New York, were then read by title only.

Dr. Van Harlingen showed tubes, like those used in oil painting but larger, for the purpose of preserving and dispensing ointments, which should be melted and poured into the open bases of the tubes, these being then closed. This offered also a cleanly method of transporting ointments. They were also in use for English shaving soaps, and could be obtained of all sizes, of Remington, 18th and Walnut streets, Philadelphia.

Dr. Fox had used these to inject ointments through a soft catheter into the deep urethra.

After the induction of the newly-elected officers, the Association adjourned to meet at Saratoga, New York, on the last Tuesday of August, 1878.

SOCIETY OF PHYSICIANS AND SURGEONS.

(Reported by F. M. Hall, M. D.)

Regular Meeting, September 10th, 1877.

The President, Prof. Wm. A. Byford, in the chair.

The society met, for the first time, this evening, in the rooms of the Chicago Medical Press Association (188 South Clark street), which had been kindly tendered them by the association for their meetings. The members seem to be well pleased with their accommodations, and fully appreciate the courtesy shown them.

After the meeting had been called to order by the President, the minutes of the preceding meeting were read by the Secretary, and accepted by the society.

John H. Rauch, M. D., President of the Illinois State Board of Health, having been proposed for membership at a previous meeting, the Secretary was instructed to cast the vote of the society in his favor.

As there was no further business of special importance before

the society, an informal discussion of the use of eucalyptus followed.

Dr. Bevan had used it beneficially in cases of debility and prostration, accompanied by nervous excitability. He considered it very similar to valerian in its action. It was tonic, stimulant and slightly anodyne.

Dr. Byford agreed with Dr. Bevan in regard to its action. He had used it where there was great debility (accompanying uterine disease), with violent sub-occipital headache, and pain following the course of the spinal column, culminating in convulsions, and was well pleased with its effects.

Dr. Bridge said the elixir of eucalyptus would completely cover the disagreeable taste of quinine.

The proportions to be used are as follows: gr. j. to the ʒj. of the elixir. In speaking of the different preparations covering the taste of quinine, Dr. Merriman mentioned glycyrrhizin, which is the flavoring extract of glycyrrhiza: The glycyrrhizin (3 or 4 grains) should be taken into the mouth and allowed to dissolve until you obtain the full taste of the licorice. The quinine should then be taken into the mouth and immediately swallowed.

The meeting then adjourned.

Reviews and Book Notices.

CYCLOPÆDIA OE THE PRACTICE OF MEDICINE. Edited by *H. Von Ziemssen*, Vol. XII. Diseases of the Nervous System. By *Prof. Nothnagel* of Jena, *Prof. E. Hitzig*, of Zurich, *Prof. F. Obernier*, of Bonn, *Prof. O. Heubner*, of Leipzig, and *Prof. G. Huguenin*, of Zurich. *William Wood & Co.*, New York.

Prof. Nothnagel's monograph, considers Anæmia, Hyperæmia, Hemorrhage, Thrombosis, and Embolism of the Brain, and treats most ably of the morbid states in question. The translation is by Dr. James J. Putnam, and is creditably executed.

Obernier. Takes up the obscure and difficult study of tumors of the brain and its membranes, and has collected an amount of data that the casual student would not have supposed existed on the subject, and while leaving much to be desired, and much that remains indefinite, has made a positive contribution to our knowledge of this class of cases. Translated by Dr. Henry R. Swanzy.

Heubner. Has studied exhaustively the effects of Syphilis upon the brain, its membranes and the peripheral nerves. No specially new additions have been made to our previous knowledge of the subject, but he has collected the facts which were hitherto widely scattered, and has earned the thanks of the profession for a clear, lucid statement, in compact form, of our possessions and resources for treatment of these diseases. Translated by Robert T. Edes, M. D.

Huguenin. Takes up the study of the chronic and acute inflammations of the brain, and has given on this important group one of the most valuable monographs yet published. His style is clear, and statements supported by a wide experience, while his deductions logically drawn, lead us at once to attach great importance to his opinions. It is the longest and most elaborate of the five monographs constituting the volume. It is translated by Drs. Bradford, Shattuck and Cutler.

Hitzig's Memoirs on hypertrophy and atrophy of the brain are of interest, as is everything coming from the pen of this distinguished observer. After a careful study of the pathology of these diseases, he advises what almost all alienists would endorse—the early removal of the patient to a well conducted asylum, furnished with large grounds. His first requisite in treatment is *rest* under continuous skilled oversight; *fresh air*, good *nourishment*. His therapeutics do not differ essentially from that usually adopted in the treatment of the better class of American institutions. The memoirs are well translated by Dr. S. G. Webber.

CYCLOPÆDIA OF THE PRACTICE OF MEDICINE: Edited by *Dr. H. Von Ziemssen*, Professor of Clinical Medicine in Munich, Bavaria. Vol. VII. Diseases of the Chylopoetic System, together with the Chapters on Diseases of the Naso-pharyngeal Cavity and Pharynx, Laryngitis Phlegmenosa, Perichondritis Laryngea, Ulcerations and Tumors and Neuroses of the Larynx, by *Prof. Wendt*, of Leipzig; *Prof. W. Leube*, of Jena; *Dr. O. Leichtenstern*, of Tuebingen; *Prof. Heller*, of Kiel; *Prof. Von Ziemssen*, of Munich, and *Dr. A. Steffen*, of Steffn: Wm. Wood & Co. 1876. Octavo; pp. 1,046.

The first article is an exhaustive one, by the late Dr. Herman Wendt, of Leipzig, on diseases of the naso-pharyngeal cavity and pharynx. Dr. W. discusses the general anatomy of the region, its participation in respiration, in deglutition, and in speech, and its relations to the ear. Then he reviews the general symptomatology, diagnosis and treatment of the various diseases of the locality. The article, as a whole, strikes us favorably, not so much because of its originality as of the painstaking and laborious examination of authorities, and judicious selection displayed in the compilation. We take exception, emphatically, to the recommendation he makes of the nasal douche, "as a valuable and, with ordinary care, harmless instrument in the treatment of nasal catarrh," and can only account for his freedom from accident in its use, by supposing his practical experience with it was not extensive.

The article on diseases of the stomach and intestines, by Prof. Leube, has an admirable introductory chapter on the anatomical and physiological relations and functions of the stomach.

The chapter on ulcer of the stomach is well worth careful study; it is comprehensive, thorough and the therapy is scientific.

The article by Prof. Leichtenstern, on constrictions, occlusions and displacements of the intestines, is full but heavy and uninteresting, and is mainly a compilation, but as such is very valuable.

The article on intestinal parasites is a success, so far as classification, etiology, general pathology and diagnosis are

concerned, but the treatment proposed for some varieties seems to be unnecessarily elaborate; for example, the method recommended for the treatment of oxyuris vermicularis, is washing out the large intestine with a solution of soap—an enema tube eighteen inches long and a glass funnel being used for the purpose. The patient is placed in various positions on his hands and knees, on his belly, and on his back, and with thighs well flexed on the abdomen; three or four quarts of water being thus introduced, under a moderate pressure.

About one-fifth of this volume is devoted to diseases of the larynx. The author, Prof. H. Von Ziemssen, from an extended experience and careful study, has been enabled to furnish a most excellent chapter upon these diseases. He has carefully described plegmonous laryngitis, inflammations of the perichondrium, ulcerations and tumors of the larynx, and the various neuroses to which this organ is subject. The article is written with the clearness and precision which mark the productions of this author, and is amply illustrated with wood cuts, so that those not familiar with these subjects could hardly do better than read this chapter.

An anatomico-physiological introduction precedes the article on the neuroses, which, by the aid of three or four wood cuts, gives a clear idea of the functions of the muscles and nerves of the larynx, as at present understood. As students of anatomy often neglect this subject, we think the majority of physicians would find this of very great interest.

In the treatment of syphilitic affections of the larynx, the author urges the necessity of active treatment in the endeavor to check the progress of the disease as soon as possible.

He greatly prefers mercurial inunction to any other means, and he employs it so vigorously that the greatest care is necessary to prevent ptyalism. Iodide of potassium is only recommended in those cases where there is a "depraved constitution,"—where the mercurial treatment does not produce the desired result, or when, in doubtful cases, (in the absence of alarming conditions) it is desired to establish the diagnosis by the treatment.

In these cases, he recommends this remedy in doses of from five to seven and a half grains every two hours.

The theory advanced, that paralysis of the recurrent laryngeal nerve, in cases of aneurisms and tumors, is due more to stretching than to pressure, would seem to be refuted by the alleged results of the treatment of sciatica by nerve stretching, as recommended by Prof. Nussbaum, of Munich.

In the treatment of paralysis of the laryngeal muscles, electricity is highly recommended, especially when employed through the pharynx. Strychnia, in solution, used hypodermically, is said to be "most worthy" of confidence. The dose recommended is at first gr. $\frac{1}{14}$, which in adults is soon increased to gr. $\frac{1}{7}$. These doses seem so large as not to be free from danger, yet the author claims to have used them "without detriment and with the best results."

Following this is an article by Steffen, on pseudo-croup, or "Spasm of the Glottis."

The article begins with a concise history of the disease, and the theories entertained by different authors as to its causation.

The author discards all others of the long list of names by which this affection has been designated, because, in his opinion, none of them so clearly represent the conditions of the disease as the one chosen.

According to the author, the paroxysm depends upon a spastic contraction of the muscles, which normally narrow the glottis, and the abnormal activity of these muscles has its foundation in a pathological irritation of the recurrent laryngeal nerve.

The predisposing cause of this spasm is, in nine cases out of ten, rachitis; and the principal exciting cause is disturbance of the rhythm of the respiratory acts. This disturbance is usually the result of suddenly awaking out of sleep, changes of position of the body, coughing, screaming, mental agitation, disturbances of mind, swallowing food, and abrupt changes of temperature.

In the etiology of this affection heredity has little, if any, influence. Catarrhs of the larynx, trachea and bronchi, are incapable of producing spasm of the glottis, and the thymus gland has nothing to do with this disease. Enlargements of the tracheal and bronchial glands, and some other conditions, are supposed to exert some influence in the causation.

In adults this disease cannot be caused by rachitis. It may result from local irritation of the larynx, or from reflex irritation, and as it occurs most frequently in females, these reflex manifestations usually have their basis in affections of the uterus.

Including all cases, the prognosis is thought to be, on the whole, favorable.

Regarding treatment during the paroxysm, the author suggests nothing new, but recommends those methods which, to us, seem least likely to afford prompt relief. Between the attacks his treatment usually resolves itself into combatting the real or fancied rachitis.

This volume contains much of interest to the general practitioner, which can hardly be ignored by those who have access to the writings of other authors upon the subjects of which it treats.

A Practical Treatise on the Diseases of Children. By *J. Forseith Meigs, M.D.*, and *William Pepper, A. M., M.D.* Sixth Edition. Revised and enlarged. *Lindsay & Blakiston*, Philadelphia. 1877.

More than any of the preceding, this edition assumes a place of high rank in the literature of Children's Diseases. In it there has been added an excellent article on cerebro-spinal meningitis, and a short one on night terrors; while that on cerebral congestion has been carefully re-written, and the subject presented in a much more comprehensive and satisfactory manner than heretofore.

These additions and alterations have been made in such a manner that the bulk of the volume is not materially increased. It seems to have been the endeavor of the authors to make this book complete and exhaustive, and at the same time to keep it within the limits of a text-book. The length, however, of the articles and the extent to which the opinions of other authors are given, render the discussions almost too extended for the student's limited time, and tend to make it more available as a book of reference. In fact, it is in this particular that the book is achieving its greatest success; and it bids fair to

gain for itself, if it may not already be said to have gained, that place in this class of diseases, which Gross' surgery maintains in surgical literature. Its value would, we think, be greatly enhanced did it contain more particular information concerning gastric and intestinal hemorrhage of the new-born, opthalmia neonatorum, diseases of the umbilicus and umbilical hemorrhage—diseases for which we have looked in vain for satisfactory information.

We are also disappointed in finding no mention made of anodynes, narcotics, arterial sedatives, or of iodide of potassium, in the treatment of meningitis. Altogether the book is one which every practitioner, who aspires to excellence, should have in his library, and one which he cannot well afford to be without. H. T. B.

DISEASES OF THE MIND. Notes on the Early Management, European and American Progress, Modern Methods, etc., in the Treatment of Insanity. By *Chas. F. Folsom, M. D.*, Secretary Mass. Board of Health. *A. Williams & Co.*, Publishers, Boston.

The above monograph takes up, *seriatim*, the following subjects: Early Treatment of the Insane, Pinet's Reform and European Progress, English and American Modern Methods, Responsibility, Definitions, Massachusetts Statistics, State Supervision, Asylum Needs and Medical Education, treating them briefly from an enlightened stand-point, supporting the system of non-restraint, insisting upon special training for the care of the insane, and intelligent state supervision. Among the most interesting, is the sketch of Pinet's reforms in France, giving us a glance at the delusions which prevailed in regard to these unfortunates, and the barbarities practiced upon them, by both priest and physician, in the earlier ages. The book of Dr. Folsom is well worth a careful reading. B.

THE PRACTITIONER'S REFERENCE BOOK. Adapted to the use of the Physician, The Pharmacist and The Student By *Richard J. Dunglison, M. D.* Philadelphia; Lindsay & Blakiston. 1877. Pp. 341. (Price, $3.50.)

A cursory view of the contents shows the great value of this

book to the busy practitioner. The introduction is the Hipprocratic Oath. Following this, is a vast amount of "General Information for the Practitioner," embracing (1) weights and measures of the U. S. Pharmacopœia, (2) of the Metrical System, and of their inter-conversion; (3) number of drops in a fluid drachm; (4) relative value of the drop and minim; (5) approximative measurements; (6) solubility of medicines; (7) abbreviations and (8) comparison of thermometric scales. The work contains some therapeutic and practical hints for the sick-room, posology in its various aspects, directions for medicated baths, list of incompatibles, a condensed view of "the modern treatment of disease," indicating the diseases with the remedies therefor, (a section worth the price of the whole book), rules for the management of infants in the hot season, a tabular view of eruptive fevers, a diagnostic syllabus of uterine inflammations, obstetric memoranda embracing the best means of calculating the date of labor that we have seen, rules for urinalysis, for the treatment of cases of poisoning, for restoring the apparently drowned, for the application and use of disinfectants, and for preventing the spread of infectious diseases. The dietetic preparations and special forms of diet for the sick, and the rules for testing and disinfecting impure drinking-water, are compact, practical, and just what are not found in a similarly small space in any book published to-day. "How to conduct a post-mortem examination" is the most concise article in the work, and is contained in no general text-book obtainable in the United States.

The book is evidently compiled by a busy practitioner, prompted in his selection by a keen appreciation of the lack that all other busy practitioners experience in their libraries. A more judicious selection of subjects could not be made, and the class of physicians—the very busy ones—who need this book the most, will always feel that in purchasing this work they never before received so large a *quid pro quo.*

PRINCIPLES OF THEORETICAL CHEMISTRY. By *Ira Remsen, M. D., Ph. D.*, Professor of Chemistry in the John Hopkins University. Philadelphia: *Henry C. Lea.* 1877. As its title indicates this work confines itself exclusively to

theoretical chemistry, and is, consequently, but little adapted to the uses of medical men. Those, however, who are desirous of informing themselves accurately concerning the beautiful theories and mathematical principles underlying our modern chemistry, cannot do better than to read Prof. Remsen's admirable book. The investigations of Dalton, of Gay Lussac, of Dulong, of Petit and of others, are carefully considered; Avogadro's law (which is playing such an important part in modern chemistry) is clearly explained, and the important deductions drawn from it, logically demonstrated; and the constitution of chemical compounds, as viewed in the light of our present accepted theories, receives somewhat extended consideration. The whole book is carefully written and fills the field that it is intended to occupy, more satisfactorily than any other similar work with which we are acquainted. W. S. H.

CHEMIA COARTATA; OR, THE KEY TO MODERN CHEMISTRY. By *A. H. Hollmeyer, A. M., M. D.*, Professor of Materia Medica and Therapeutics at the University of Bishop's College; etc., etc. Philadelphia: Lindsay & Blakeston.

The arrangement of this work is decidedly novel, facts and principles being presented in the form of concise tables, so that a vast amount of information is contained in a comparatively small space. Owing to its tabular arrangement, it is especially useful as a book for rapid reference, and we believe that its author claims no more than is just, when he says, in the preface, that the work will be found "to be especially adapted to the wants of

1. Students intending to present themselves for examination;

2. Persons who have learned the *old* notation and wish to become acquainted with the *modern system.*

3- Those who desire to keep themselves posted on this subject, and who can thus easily refresh their memories without doing so at the expense of their other engagements.

W. S. H.

AN ELEMENTARY TREATISE ON PRACTICAL CHEMISTRY AND QUALITATIVE INORGANIC ANALYSIS. By *Frank Clowes, D.S.* London, Fellow of the Chemical Societies of London and Berlin, etc., etc. 1877.

Less comprehensive than Fresenius' classic, yet somewhat cumbersome, "Qualitative Analysis," but more extended than Elliot and Stone's popular manual, the above work seems to fill a want felt by many workers in analytical chemistry. The methods are modern, and the present approved system of nomenclature and notation are used exclusively,—facts which especially commend the book to new students in qulitative analysis. W. S. H.

THE CONVENTION OF THE AMERICAN PUBLIC HEALTH ASSOCIATION AT CHICAGO.

The Fifth Annual Convention of the American Public Health Association assembled at the Grand Pacific Hotel, on September 25th, 26th and 27th, 1877.

TUESDAY, SEPTEMBER 25TH—FIRST DAY.

The meeting was called to order by Dr. John H. Rauch, of Chicago, president of the association, Dr. Elisha Harris, of New York, officiating as secretary. The president opened the proceedings by introducing Mr. Wirt Dexter, who delivered the address of welcome to the convention. Mr. Dexter spoke of the great importance of the work before the convention, and in fact of any movement having for its object the care of the public health. The absence of disease means wealth and prosperity, and the citizens of Chicago, as shrewd business men, should see this. In point of fact, they are more likely to look with favor on conventions relating to commercial projects than on those which discussed such abstract matters as public health. Men think all men mortal but themselves, but when it can be made to appear that the preservation of public health directly affects the pocket of every trader, small or large, they will see things in their true light.

In conclusion, the members were welcomed to the city, and the kindest wishes expressed for the satisfactory progress of the deliberations.

The next business in order was the address of the president, Dr. John H. Rauch, who read an interesting paper on the geological formation and the sanitary conditions of the city of Chicago. The paper dwelt upon the evident geological changes whereby the lake had receded from its ancient boundaries to its present limits, leaving the present site of the city above the water. The ground on which the city was built was therefore varied in its character, running from hard clay to soft, alluvial mud. These facts must be taken into account if the subject of public health would be fully and intelligently studied. Some of the climatic conditions affecting the general health of Chicago were also pointed out, and the subject of sewerage was touched upon. The paper suggested several directions in which it would be profitable to institute systematic and thorough inquiry, and referred them, with other suggestions, to the action of the convention.

SECRETARY'S REPORT.

The secretary, Dr. Elisha Harris, of New York, then read portions of his annual report. The work marked out by the association was alluded to, and also the difficulties met with in procuring accurate statistics. It advocated the organization of State boards of health, who should pay particular attention to preparing maps which should show not only the ordinary typographical features, but the hydrography and the differences in elevation. By this means only could the influence of swampy and marshy grounds, stagnant waters, and other local causes of mortality be accurately and intelligently studied. This work should be still further and more minutely carried out by local boards in the counties and towns. State boards of health had already been organized in thirteen States, and too much importance could not be attached to the work of these boards if properly carried out. Some of the western States had already made considerable progress in the sanitary work, but much remained undone, and it was for the convention to help along the work.

Mr. E. S. Chesbrough, city engineer, was next in order with a paper on "The Problems, Old and New, in the Sanitary Drainage and Sewerage of Chicago and other Western Cities." Mr. Chesbrough remarked that he was not familar with the systems of many of the western cities, but he would confine himself to the work done in Chicago. He then read an interesting paper, giving a full and complete history of the difficulties met with and overcome in draining the city. The work was traced step by step from the time when the water ran in the middle of the street, making bottomless mud-puddles in the principal streets, down to the present complete system of tunnels and sewers which seemed to meet all the requirements. Mr. Chesbrongh explained the system by the aid of a map, and answered a number of questions by the members.

The order of business was changed, somewhat, and Mr. Charles F. Folsom, secretary of the State board of health of Massachusetts, spoke at considerable length, and read the draft of a law on "Pollution of Streams." Mr. Folsom spoke of the absolute necessity of some legislation of this character, especially in some of the eastern States where, in some cases, the water in the streams was so foul that the manufactories found it necessary to use a filter before the water could be available for their business. The effect of these pollutions on the health of the neighborhood was fully explained. The subject of pollution of streams, and other sources from which supplies of drinking water were derived for cities and towns, was discussed at length, and Mr. Folsom read the draft of a proposed law for the State of Massachusetts. The law enacted heavy penalties for any act tending to render the water impure or unfit for use. It also gave large discretionary powers to the State boards of health to investigate and prosecute all offenders.

The bill was the subject of much discussion, participated in by Dr. Bevan, Prof. Lyman, Dr. Harris, and others, and on the whole was favorably received. On motion the proposed bill was referred to a special committee of five for some revision and amendments.

The report of the treasurer of the association was received, showing a paid-up membership of two hundred and sixty. No objection being raised, the report was referred to the executive committee.

The secretary reported a list of about one hundred names which had been proposed as honorary members and favorably acted upon by the executive committee. On motion, they were formally elected members.

The meeting adjourned.

THE EVENING SESSION

commenced in the ladies' ordinary at 8 o'clock, Dr. N. S. Davis presiding. Dr. Davis made a few remarks on the early history of Chicago, and pleasant reminiscences of the times when there was "no bottom" on Lake street, and the bull-frogs were the only occupants of the site of the Grand Pacific.

Dr. Hosmer A. Johnson then read a paper on "The Sanitary Geography of Phthisis Pulmonalis and other Pulmonary Diseases in Chicago and Other Cities of the Northwest." The questions discussed were :

1. What is the relative frequency of phthisis pulmonalis in the north-western States as compared with the north-eastern States of the Union?

2. Does phthisis pulmonalis, relatively to other causes of death, become more frequent as population increases in the United States?

3. What is the ratio of increase, if any, in the two sections of the country mentioned?

4. What are the causes that modify the prevalence of this disease in the two sections, and more especially in the north-western states?

These questions were discussed at length, and an imposing array of figures and statistics adduced. The conclusions arrived at seemed to be not a little uncertain to the author himself, particularly as there were so many modifying causes and local influences, that no general rule could be laid down.

Dr. Turner made a few remarks on the subject, and was followed by Dr. Gihon, Medical Inspector, United States Navy, who gave the result of his observations. He said that it was

an acknowledged fact that lung diseases were much more prevalent in what is known as "wet" vessels than in "dry" ones. The medical officers had waged a constant warfare against the practice of washing the decks too frequently. In leaky vessels, or vessels on which decks were kept constantly damp by the over-cleanliness of martinet officers, there was always an excess of consumption and lung diseases; while on vessels with perfectly dry decks these diseases were comparatively rare. The rule seemed to be that a prevailing moist atmosphere, wherever found, was conducive to this class of complaints.

"The Relation of Hygiene to Higher Education" was the subject of an interesting and able paper by Dr. J. M. Gregory, president of the Industrial University of Illinois. The ground was taken that the preservation of health was even of more importance in the colleges and universities than in the primary schools. The necessity of pure air, plenty of exercise, and the danger of a forcing process on the bodily and mental organization of the student were fully set forth.

The meeting then adjourned.

Wednesday, September 26th. Second Day.

The second day's session opened in the ladies' ordinary of the Grand Pacific, the president, Dr. John H. Rauch, in the chair. The first paper read was by Dr. J. L. Andrew, of La Porte, Indiana. The author discussed the influence of trees in condensing moisture from the air and retaining it in the ground. Examples were multiplied to prove the fact that a general clearing out of the forests invariably produced a diminution in the rainfall. Probably the best example was the condition of things in northern Africa, where, by the boring of artesian wells, and planting of trees, stations and oases had been established in the great Sahara desert, and these spots were now frequently visited by showers. A still stronger proof was the fact that the discovered sources of the Nile, which sends its immense floods over the lower country, were in the dense forests and jungles under the equator; jungles so dense that the light of the sun could scarcely penetrate. Similar exam-

ples of the value of tree-planting could be found on our western plains, where the testimony of army officers was unanimously in favor of the good results from such artificial forests. The paper also discussed the value of timber belts and undergrowth in counteracting the malarial effects of swampy and marshy ground, the conclusion being that such timber growths offered a great protection from this class of poisons. The eucalyptus among trees and the sunflower among plants were mentioned, as being particularly valuable for neutralizing and destroying the malarial poisons in exposed situations. The author recommended a still further study of this subject, and expressed the belief that the science of prevention of disease was yet in its infancy. He argued that all regions unfit for profitable cultivation should be devoted to forests, and these forests should be protected by an enlightened public sentiment as well as by legal enactments, on the ground that it was a sanitary as well as an economical necessity.

The secretary then presented a paper by Prof. Brewer, of the Sheffield scientific school of Yale college, on the subject of tree-planting, the arguments and conclusions being similar to those of the preceding paper. It carried the inquiry still further by giving some results of experiments with different species of trees with a view to determining the sanitary qualities of each. The paper was supplemented by some remarks by the secretary, who instanced, the work of laying out a town on Hampstead plains, on Long Island, by A. T. Stewart. In this case the streets were laid out and trees planted in advance of any other improvements.

Dr. Churchill, of Galesburg, spoke of the changes noted in that climate since it was settled. A marked decrease in the rain-fall had resulted, or, at least, followed the clearing away of the forests.

The next paper was by Dr. Ezra M. Hunt, secretary of the State board of health of New Jersey, the subject being, "A Memorandum of Observations and Propositions concerning the Sanitation of Individuals, with Reference to the Arrest and Prevention of Infectious Maladies." In the absence of the author, the secretary read the principal portion of it, accom-

panied with explanatory remarks of his own. The paper was in substance the result of the observations and practice of the author in reference to individual cases with which he had to deal.

A paper, "A Review of the Teachings of Twenty-two Years' Record of the Mortality from Croup, Diphtheria, and Scarlatina in a City," by Dr. Edwin M. Snow, superintendent of public health, Providence, R. I., was also read by the secretary, and consisted principally of carefully prepared statistics of the mortality resulting from these diseases in the city of Providence. Both these papers were accepted, on motion, and ordered printed with the proceedings of the association.

The secretary read a letter from Dr. Samuel Choppan, president of the Louisiana board of health, regretting the inability of that gentleman to be present at the meeting. The letter stated that the arrival of several ships from Havana, with cases of yellow fever on board, had demanded the writer's whole time and attention. He proposed, however, to prepare a paper on the subject of yellow fever, with reference to its prevention by quarantine regulations.

Dr. Henry M. Lyman, of Chicago, read a paper on "'Stamping out' Scarlatina, and the Extinguishment of Zymotic Disease." He first called attention to a chart, showing the comparative amount of mortality from scarlet fever in Chicago since 1850. The chart showed that there had been a scarlet fever epidemic on an average of every five years, and that each visitation had lasted about two years. The death-rate was higher in extremes of heat or cold, the mortality being greater in the midsummer or the midwinter months. The paper suggested measures looking to a prevention of the disease, and took strong grounds against the displaying of the obnoxious cards on houses visited by the disease. It was impossible to isolate cases in a great city like Chicago; and the people in general revolted against the yellow-card nuisance.

The result of the law compelling the display of cards, was that not less than half the cases were not reported. The family either did not call in a physician, or called in some quack who would not report the case. In consequence of this

course the disease was still further spread and the mortality increasing. The cost of the cards and tacks would pnblish, in pamphlet-form, such information as would vastly reduce the danger. The masses should be enlightened and their prejudices overcome, rather than attempts be made to coerce or drive them to certain useless measures. Other strictures were made on the conduct of the health officials in general.

Dr. Folsom, at the close of the reading, deprecated such discussions as the paper must necessarily lead to, on the ground that it was running too much to personalities. He did not think the paper a proper one for the association to spend time listening to, and hoped that in future the executive committee would look over the papers, and, by suppressing all matters relating to local troubles, encourage a higher order of discussion.

Dr. Kearney, health officer of Cincinnati, said a few words in a similar strain, and hoped there would be no discussion.

AFTERNOON SESSION.

Dr. Azel Ames, Jr., of Boston, on "The Removal and Utilization of Domestic Excreta." The writer held that out of all the methods proposed for removing the human excreta, none had paid sufficient attention to the utilization of the product. The questions to be met were the speedy, inoffensive, and economical removal of the human excreta, and the best means of rendering it profitable. The different systems were discussed, as the vault system, the water-closet system, the pail system, and the pneumatic system, each having its advocates. The vault system, as used in isolated houses and country towns, was offensive and in many cases dangerous. The earth closet system offered many advantages, but could hardly be made to work in large cities. The water system was perfect as far as inoffensive and speedy removal was concerned, but, unless by irrigation, it was impossible to use the sewerage. The pail system was in use in China, and consisted in the daily removal of the excreta, but was expensive, offensive, and open to many objections. The pneumatic system, as first made use of by Capt. Charles Liernur, consisted in theory of a tank at a street

corner or other convenient place, connected by tubes with the closets in the several houses. By means of a portable engine a vacuum is formed in the tank, the consequent pressure drawing the substance from the house to the tank, from which it is then removed and utilized. This system was further improved by the inventor, by connecting the street corner tanks with a larger tank at the central works. By pumping the air from the tank a vacuum was formed, and this in turn forming vacuums in the smaller tanks, the result was that the excreta were thus collected by pneumatic pressure. From the main tank the substance was treated with sulphuric acid or some other deodorizer, and made to pass over a drum heated by steam and revolving in a superheated atmosphere. This reduced the substance to a powder, when it was ready for shipment in barrels. This system had been found practicable, and was in successful operation in Amsterdam, and one or two other European cities, the prepared powder being found of sufficient value to pay all the running expenses, and provide a sinking fund toward the repayment of the first cost. This method in successful operation seemed to meet all the requirements, for a perfect system. The question to be met at present was how to render least offensive and least objectionable the vault system, as this is the one in almost general use outside of large cities. The ordinary methods of cleaning the privy vaults by night scavengers was too disagreeable and disgusting to be tolerated. To meet this objection a number of patent appliances had been introduced, all of which were discussed by the author. Some of them, he said, were positively dangerous, and in some instances had exploded in the attempt to confine the gases. A machine similar in the operating principle to the Liernur pneumatic process, seemed to meet the approval of the author. In conclusion, he held that no system could be called a success unless it provided for a utilization of the excreta, and their return to the soil in the shape of a fertilizer.

Dr. N. S. Davis had prepared a paper on "The Means of Diminishing Infant Mortality from Bowel Affections." The doctor spoke of the causes of bowel affections, which, in gen-

eral terms, might be stated as the result of the high temperature of the hot summer nights. It might also be affected by the presence or absence of ozone, or by electrical conditions, but he believed the principal cause to be the hot nights and the absence of proper ventilation. A high temperature during the day was not so productive of complaints as the continuous heat during the night. It was well known that nearly all bowel affections, including cholera, first affected the patient in the hours between midnight and morning. The heat being the cause, what should be done by way of remedy? Floating hospitals and country air were well enough in their way, but all could not avail themselves of these advantages. The next best thing to be done was to secure all the ventilation possible and, by a cool bath before putting the child to bed, to reduce, the temperature of the body and quiet the nerves of the bowels. A wet towel around the child's body was also in many cases productive of a great deal of good. By proper attention to these simple appliances, during the prevalence of a heated term, the infant mortality may be reduced at least one-half.

Dr. Hamill, physician in charge of the Floating hospital, gave his testimony to corroborate the positions taken by Dr. Davis. He had seen children who on shore were oppressed and almost exhausted, revive even on the trip from the shore to the hospital boat, and on reaching the boat sink into a quiet and refreshing slumber.

Dr. Lyman's experience was similar, and he considered that a little attention to the cause, and some simple precautions like those suggested by Dr. Davis, would be of great benefit to the children.

In answer to a question by Dr. E. W. Gray as to observations on the temperature of the blood, Dr. Davis again spoke of the effect of heat on the system. When the air is so heated and rarefied, the child's lungs are too small to take a sufficient quantity to supply the body with oxygen.

The child, therefore, is soon prostrated with exhaustion, and a relaxation of the nerve centres ensues, acting most strongly on the bowels.

Dr. Turner said that children were largely fed on artificial

food and not the mother's milk. When cow's milk was used it was sometimes watered, and other substances were added to it with a view of rendering it more like the natural food. Indeed he had met with numerous cases where the child actually died of starvation. He had always advocated plenty of pure cow's milk, and met with good results.

Several other members gave expression to their views, but nothing additional was elicited.

"A Report and Discussion upon the Experience of the Department of Physical Education and Hygiene of Amherst College," was the subject of a paper by Prof. E. Hitchcock, of Amherst, Mass., and was read, in the absence of the author, by Mr. John Woodbridge. The paper was a detailed description of the buildings and apparatus in use in Amherst college, with some observations as to the results of the system of physical education on the students. The department is in charge of a professor, and a regular routine of exercises is carried out, the attendance of the students being made obligatory. The description was tedious and uninteresting to any but an Amherst man, and had the effect of rapidly thinning out the audience.

Dr. Coan, of Quincy, read a short paper on the relative amount of physical culture required for male and female students. The doctor seemed to think that the girls were fully as capable, physically, of pursuing a college course as the boys.

The meeting adjourned.

EVENING SESSION.

The meeting was called to order at 8 o'clock, Dr. Ingals, of Chicago, presiding. The first paper was "A Statement and Discussion of the Sanitary and Economical Importance of the best Medical and Surgical Treatment of the Needy Poor," by Dr. Edmund Andrews, of Chicago. The doctor argued in favor of prompt and efficient surgical or medical aid to the poor, on the ground that it was much more economical for society to furnish a surgeon, and even mechanical appliances in case of accident, than to have the unfortunate man a permanent

charge on the public as a pauper. He held that the cost of supporting him as a pauper was not to be reckoned in comparison with the loss of the man himself to society. He instanced cases of rupture, for example, where a trifling expense would furnish a truss, whereby the man could return to his accustomed work and not be obliged to spend the balance of his life as a helpless pauper. Other examples of a similar character were given, showing what an extent of suffering and misery could be prevented by a well-directed public movement to aid men who meet with serious accidents while at their work, and who are utterly unable to secure the proper treatment for themselves. It was a disgrace, he said, that deformed and crippled creatures should be allowed to walk the streets when a proper treatment in the beginning would have restored them to health and usefulness.

Dr. Chancellor, of the State board of health of Maryland, was called on for his views, and said that he was strongly in favor not only of surgical treatment, but also of medical aid in case of sickness in their families. He had given particular attention to this subject, and had made reports on the condition of some of the charitable institutions in his own State. The workingman was often driven to ask for aid by sickness or death in his family. The feeling of shame was thus overcome, and he was liable to become a voluntary pauper. By furnishing medical aid at, perhaps, a nominal cost, and so preserving the feeling of independence, the man would be truly benefited and society be the gainer.

Dr. Harris, the secretary, made some remarks on the same subject, and offered the following:

Whereas, Public attention is being urgently invited to the duty of adopting measures for repressing and preventing pauperism; and,

Whereas, There are causes of bodily disabilities which induce dependence and the entailment of pauperism, resulting from the neglect and incompetence of the attendance and medical sanitary care received by the needy poor when such care should be given:

Resolved, That in the judgment of this association, the official inspection and inquiry for ascertaining and repressing the cause of bodily disabilities and pauperism, is an important

public service in the interests of hygiene and the public welfare, and that those interested require that this duty should be continued with faithfulness, and the results be published widely for the information of the public.

The next paper was by Dr. Henry M. Lyman, of Chicago, on "The Present State of Exact Knowledge of Causation and Prevention of Epidemic Diseases." The doctor first called attention to the difference between poisons and infectious substances. Snake bites were examples of poisons, while the bite of a rabid dog was an illustration of the latter. The real difference between a poison and an infection-virus was that in the case of poisoning the effect was dependent upon the amount of the matter injected, it having no power of reproduction, while a virus was endowed with the power of self-multiplication, and soon extended over the whole body. Hydrocyanic acid, nettle juice, and the venom of a copperhead, may be accepted as types of poison, while the fluids of the dissecting-room, the lymph of a vaccine vesicle, and the exhalations of measles, furnish illustrations of the nature of an infectious substance. By one or the other of these modes nearly all epidemic diseases are communicated. The paper gave numerous illustrations explaining his meaning, and showing how the different infectious diseases may be communicated. The action of the infecting substance, in the same classes of epidemics, is not as yet fully understood, and was a topic calling for careful study and investigation. In some cases a family, or even a community, may be so inoculated with poisonous virus of a milder form, as to be predisposed to the ravages of a dangerous epidemic. The paper treated at length of the different epidemic diseases in detail, showing how mistakes were liable to arise in looking for the true causes of the spread of the contagion.

Rev. Brooke Herford then delivered an address on the subject of "Public Health and Public Holidays." He said that some of the English writers had complained that life in England was run on a high pressure. If this was true in England, how much more could it be said of this country.

The business in this country was run at a racing speed, and was a terrible strain on the mind and body. No rest was al-

lowed night or day. Men were at their desks at seven o'clock in the morning and remained till after midnight. It used to be said that every French soldier carried a field-marshal's baton in his knapsack; and it might be said that every clerk or office boy saw himself in the future a Tweed or a Stewart. Men by such constant application lost all taste for leisure, and could do nothing but drive along. They will tell you that they cannot possibly leave their business; and in a few years a broken-down, prematurely-old man, who trembles at every noise, is all that is left of the once vigorous worker. In England the case was different. Holidays are far more numerous, and are better observed. Easter-time, Good-Friday, Whitsuntide, besides the week's holiday at Christmas-time, were universally observed, to say nothing of the Queen's birthday and anniversary days. In this country there were hardly four holidays observed in the year, and these only partially. It has been said that an American with a holiday is the most miserable being on earth. This was in a measure true. The business man had no idea of spending time for culture, and wanted to carry his business into everything. The Englishman, on the contrary, seized upon every possible occasion for the laying aside of his business cares and giving himself up to pleasure.

The speaker pointed out the inevitable results to the health and strength, of these two courses, showing the advantage strongly in favor of the Englishman. In conclusion, he spoke of the movement in England for a Saturday half-holiday, which had succeeded in the busy city of Manchester and other English towns, and expressed a hope that this movement would be taken up here and carried through to a similar success.

The address, which was an eloquent and interesting one, was received with frequent applause. A vote of thanks was tendered for the paper, and it was ordered to be printed with the proceedings of the Association.

Thursday, September 27th—Third Day.

MORNING SESSION.

The meeting was opened by Dr. DeWolf, Health Commis-

sioner of Chicago, with a paper on the "Destruction of Offensive Gases from Rendering Tanks and Fertilizing Establishments." The doctor spoke of the importance and the difficulty of meeting this problem. There were three hundred thousand beeves and three million two hundred thousand hogs slaughtered in and around this city last year. Each beef produced from fifty to sixty pounds of offal, and each hog, from twenty to thirty pounds. This gave some idea of the magnitude of the nuisance-producing business. He then gave a description of the rendering-tanks in which every thing of an offal nature was collected and subjected to a steam pressure. It was the gases from these tanks which caused the trouble. There were two hundred and forty-two of these rendering vats, and the gases were formerly all allowed to escape into the open air. The various means proposed for condensing and destroying these gases were explained at length.

He spoke of the catch-basin which had been introduced, by which about twenty tons of solid animal matter, which was formerly conveyed into the river through the sewers, was now collected and utilized. He referred, in closing, to the recent scarlet fever epidemic, and of the attempts made to arrest and quarantine the disease, as well as the probable effect of the poisonous gases alluded to, on the sanitary condition of the city.

Dr. Folsom, of Boston, made some remarks on the subject of the paper, and thought that it was absolutely necessary to subject the offal to the condensing process while it was perfectly fresh. He also spoke of the scarlet fever question, and this led to remarks by other gentlemen present, Dr. DeWolf making the statement that the number of scarlet fever cases had been as great in the best wards as in the worst, as shown by the reports of the Board of Health, but that the death rate was materially modified by the good sanitary condition of the wards.

Dr. Johnson agreed with the last speaker. His experience was that the local sanitary conditions had little or no effect in preventing the spread of the disease, although it certainly had an influence on the rate of mortality. Considering all the

difficulties to be encountered, the city had reason to congratulate itself on its sanitary condition. The attempt to regulate the stench-producing establishments on the southwest border of the city, had been found almost impossible. People living in the immediate neighborhoods of these places, would come forward and swear that they were the most healthy places in the world. The doctor accounted for this on the principle that the internal conditions of the body adapted themselves to the external conditions. When the dry southwest winds came over these places, they gathered up the gases and carried them over the city until a cooler, moist current of air was encountered near the lake, and the poisonous gases deposited on the inhabitants. The warfare against these stench-producing establishments must be kept up until the evil was overcome.

This closed the discussion, and the auditing committee reported that the affairs of the treasurer and secretary had been examined and the reports of those officers found to be correct.

The election of officers for the ensuing year, which followed, resulted as follows: President. Dr. Elisha Harris, Health Commissioner of New York; First Vice-President, Dr. J. L. Cabell, President State Board of Health, University of Virginia, Charlotteville; Second Vice-President, Dr. Hosmer A. Johnson, Chicago; Secretary, Dr. R. H. James, Secretary New York Board of Health; Treasurer, Dr. Charles F. Folsom, Secretary State Board of Health, Boston, Mass.; Executive Committee, Dr. John H. Rauch, President State Board of Health, Chicago, Ill.; Dr. C. B. White, ex-President State Board of Health, New Orleans, La.; Dr. C. W. Chancellor, Secretary State Board of Health, Maryland; Dr. J. T. Reeve, Secretary State Board of Health, Appleton, Wis.; Dr. C. N. Hewitt, Secretary State Board of Health, Red Wing, Minn.; Dr. Thomas J. Turner, Medical Inspector United States Navy, Washington, D. C.

AFTERNOON SESSION.

The first paper read was by Dr. Elisha Harris, of New York, on "The Statement on the Outlines of a Plan for Securing Uniformity and Completeness in the Registration of Vital Statistics and Prevalent Diseases."

The paper gave some of the methods in use in New York, Boston, and other of the eastern cities. The object of the paper was to prove the necessity of some national movement looking to a complete compilation and record of all facts bearing on the subject of vital statistics. On motion of Dr. Hewitt, the subject matter and the recommendation of the paper were referred to the several boards of health.

The Secretary then called attention to a number of papers in his hand on different subjects, which there was not time to read. All of these papers were referred to the publishing committee.

Dr. Charles N. Hewitt, Secretary of the State Board of Health, Minnesota, read an interesting paper on "The Relation of Hygiene to Lower Education." The paper took the ground that a study of the principles of hygiene was worthy of more attention in the common schools than the study of physiology as ordinarily pursued. A child should be taught what to do in cases of sudden sickness or accidents, and how to preserve health rather than have his brains crammed with the physiological names of the different bones and tissues of the body. The lower classes must be reached, and for this end the family physician must lend his aid by personal advice and the distribution of small tracts on hygienic topics.

The newspapers should also be made use of to disseminate the information, and a good work could be done in the Sunday schools. He also urged the value for this purpose of suitable text-books, which should be prepared for use in the common schools, instead of the worthless physiologies.

The Secretary then mentioned the fact that an association like to the present was in session in Nuremburg, Germany. The order of business laid out for the German fellow-workers was read, the programme extending over three days. An invitation for an exchange of publications was accepted on motion of the Secretary.

Dr. Chancellor moved that the customary thanks be extended to the proprietors of the Grand Pacific, the newspapers, Mayor Heath, and the citizens of Chicago in general, for kindness and courtesy shown to the Association.

The time and place for holding the next annual convention were referred to the executive committee, with the recommendation that the meeting be held a little earlier in the season.

The resignation of Dr. Charles F. Folsom, treasurer elect, was accepted at his earnest request, and Dr. H. B. Baker, Secretary of the State Board of Health, Lansing, Mich., was elected to the position.

After a vote of thanks to the retiring officers of the Association, and some remarks by the Secretary, the convention was declared adjourned *sine die*.

The next meeting of the Association will be held at White Sulphur Springs, Va., during next August.

BOOKS AND PAMPHLETS RECEIVED.

The Practitioner's Reference Book. Adapted to the use of the Physician, the Pharmacist and the Student. By Richard Dunglison, M. D. Lindsay and Blakiston. Philadelphia. Price $3.50.

Fat and Blood, and how to make them. By S. Weir Mitchell, M. D. J. B. Lippincott & Co. Philadelphia. Price $1.25.

Some General Ideas Concerning Medical Reform. By David Hunt, M. D. A. Williams & Co. Boston.

An Index of Diseases and their Treatment. By Thomas Hawkes Tanner, M. D., F. R. S. Second edition, by M. H. Broadbent, M. D. Philadelphia: Lindsay & Blakiston. Price $3.00

Personal Appearance and the Culture of Beauty, with hints as to character. By T. S. Sozinskey, M.D., Ph. D. Allen, Lane & Scott. Philadelphia.

Transactions of the College of Physicians of Philadelphia. Third series. Vol. III. Lindsay & Blakiston. Philadelphia. 1877.

Transactions of the Kentucky State Medical Society, 1877. John P. Morton & Co. Louisville.

Pathology and Treatment of Sprains. By Richard O. Cowling, A. M., M. D.

Maternal Impressions. By Thomas Waddel, M. D.

Thirty-fourth Annual Report of the Managers of the State Lunatic Asylum, Utica, N. Y., for the year 1876.

Analysis of Seven Hundred and Seventy-four Cases of Skin Disease, Treated at the Demilt Dispensary during the year 1877. With Cases and Remarks on Treatment. By L. D. Bulkley, A. M., M. D.

The Use of Obstetric Forceps in abbreviating the second stage of labor. By Edward S. Dunster, M. D.

Announcement of the Chicago College of Pharmacy, Eleventh Annual Session. October 1, 1877 to February 28, 1878.

The Strumous Element in the Etiology of Joint Disease. From an analysis of eight hundred and sixty cases. By V. P. Gibney, M. D., etc.

The Proceedings of the Medical Society of the County of Kings, Brooklyn, N. Y., August, 1877.

Case of Aneurism of the Hepatic Artery, with Multiple Abscesses of the Liver. By George Ross, A. M., M. D., and William Osler, M. D., L. R. C. P., London.

Excision of the Lower End of the Rectum in Case of Cancer. By John B. Roberts, M. D.

Contributions to the Treatment of Pulmonary Phthisis. By D. W. Gleitsmann, M. D.

Aiken as a Health Resort. By W. H. Geddings, M. D. Aiken, S. C.

Morphia in Child-birth. By W. T. Lusk, M. D. New York.

The Relations Existing between Eczema and Psoriasis. By Robert Campbell, M. D. New York.

The Toner Lectures. Lecture V. On Surgcal Complications and sequels of the continued fevers. By William W. Keen, M. D., of Philadelphia.

Nurse and Patient and Camp Cure. By S. Weir Mitchell, M. D.

Physician's Visiting List for 1878. Lindsay & Blakiston. Philadelphia.

Transactions of the Medical Association of the State of Alabama. Thirtieth session. 1877.

Retarded Dilatation of the os uteri in labor. By Albert H. Smith, M. D. Philadelphia.

Maternal Impressions. By Thomas Waddel, M. D.

Treatment of Old Dislocations of the Shoulder by subcutaneous section of the humerus and the formation of a false joint. By J. Ewing Mears, M. D.

Correspondence.

How to Disguise the Bitter Taste of Quinine.

To the Editor of the Journal and Examiner.

Some substance which would effectually disguise the taste of quinine and other bitter medicines, has been a great desideratum. Such a substance has been found in glycyrrhizine, which is merely the sweet principle of liquorice, rendered soluble by ammonia. An elixir containing this substance has been used, which is prepared according to the following formula:

℞	Powdered coriander, Powdered caraway,	aa. gr. cviij
	Powdered cinnamon,	gr. xciij
	Powdered star anise, Powdered tonqua, Powdered canilla,	aa. gr. lxij
	Powdered nutmegs, Powdered cloves,	aa. gr. xxxj
	Ammoniacal glycyrrhizine,	℥j gr.cxl
	Oil of orange, fresh,	gr. xxxi
	Alcohol,	f℥ xvj
	Water,	f℥ xvj
	Syrup,	f℥ xlviij

The aromatics are placed in a percolator and exhausted with a menstruum composed of the oil of orange, alcohol and water; the percolate is mixed with the syrup, the glycyrrhizine, dissolved in a small quantity of boiling water, is mixed with the liquid, and water added to make the whole mixture five pints.

The method of using the elixir is to pour out a small quan-

tity, say a dessert-spoonful, add the quinine in powder, mix and swallow, and then follow with a small quantity of the elixir.

This prescription is complex, cannot be prepared extemporaneously, will mask only a small quantity of the quinine, and offers no advantages over the glycyrrhizine in substance. If a small quantity of glycyrrhizine be taken in the mouth, quinine can be taken afterwards without perceiving the slightest bitter taste, the drug is masked perfectly, it is as tasteless as chalk, and not nearly so disagreeable to take; nor does any disagreeable taste return in the mouth. A very large dose of quinine may be covered in this way.

It is a very great convenience to combine the substances so that they may be given in one dose. This may be accomplished by suspending the quinine in a solution of the glycyrrhizine. A grain of glycyrrhizine will cover the taste of a grain of quinine, and two grains of glycyrrhizine will dissolve in a drachm of syrup. I usually make a mixture, consisting of fifteen grains each of glycyrrhizine and sulphate of quinine, in an ounce of simple syrup. This mixture will give nearly two grains of quinine to the drachm, and in it the taste of the quinine is almost perfectly disguised; there is a slight trace of bitter, but it is not at all disagreeable, and leaves the mouth in a short time. This mixture is a tolerably permanent one; the quinine will not settle to the bottom for two or three days, and when it does settle, it may be shaken up and used nearly as well as though freshly prepared.

Children and fussy women take this mixture not only without objecting, they even like it.

If it is desired to use a larger proportion of quinine to the ounce, the syrup must be mixed with water in order to dissolve the larger quantity of glycyrrhizine necessary to cover it. I have used as much as thirty grains of quinine to the ounce of the mixture, giving nearly four grains to the drachm. The disguise, however, is not as complete as in the other mixture; and, as a considerable quantity of water must be used, the quinine is not held in suspension as well.

LESTER CURTIS, M. D.

806 Wabash Avenue.

MEDICAL NEWS AND ITEMS.

REDUCED PRICES OF MEDICAL BOOKS.—*Lindsay and Blakiston*, publishers, announce that they have made very considerable reduction in the prices of many of their medical books to suit the times.

DR. VIDAL, physician at Jokoska, Japan, writes that, according to the formulæ of speech of the Japanese patients, a treasure would not suffice to pay the advice of so great a sage as the educated physician, wherefore the Japanese content themselves with not paying him for his services, but only allotting a few pence for medicine and the expenses of the visit; a sum so insignificant that more often the European physician would feel insulted by its being offered, and therefore contents himself with the profuse compliments of his clients. On the whole he does not consider a Japanese *clientéle* profitable; and, if cultivated at all, it could only be accepted as a supplement to a practice among the resident Europeans.

A PARISIAN pharmaceutist received the following homœopathic prescription to be dispensed:

Lact. mammel. virgin, (milk from a virgin's breast) - -	30 c. c.
Aq. stil. (aquæ distil.) - -	150 c. c.
Alc. (alcohol) - - -	q. s.

F. S. A. Dr. T.

WE HAVE just received a copy of the Eleventh Annual Announcement of the Chicago College of Pharmacy, and we are glad to congratulate the pharmacists on their evident indication of prosperity. The announcement itself is a decided improvement on its predecessors, and shows clearly that the executive committee are zealously working for the perfection of their particular branch of the department of medicine. One special feature in this year's announcement is the removal

of the college to the North-west corner of Jackson and Wabash. In this central location the committee have secured a well lighted and well ventilated hall, which, instead of damping the courage of the most ardent student, as their other hall must have done, will contribute greatly towards rendering the lectures a pleasure and profit to all concerned. Attached to the lecture hall is abundant accommodation for laboratory, library and instrument rooms, and we have no doubt that the several committees appointed to superintend these departments will see that they are in keeping with the advance movement which the general committee has made.

We are of the opinion that many of our young men studying medicine would do well to take a course in pharmacy before commencing the study of medicine proper. It will not be denied that the more intimately we are acquainted with the agents we employ, the more skillfully are we able to adapt their various properties; and those properties can only become familiar to us by a prolonged and intimate association.

The college opens on the first of October. T.

Report on the Chicago Floating Hospital for the season 1877. By Wm. Rutter, M. D., physician to the hospital. The floating hospital which was announced to be opened upon the advent of hot weather, has, after a period of great usefulness, been discontinued for this season, having, as in previous seasons, proved a marked success in the purpose for which it was opened, viz.: To afford convalescent and otherwise sick women and children, an opportunity of enjoying the most needful and efficient restorative agent — "pure air," such being hardly accessible to the well-to-do in a large city like Chicago, and much less so to the poor and needy who are of necessity crowded together in close apartments, on narrow and poorly drained streets. As a rule, the patients who responded to the kind and urgent invitations extended from time to time to all by the directors, attest to the benefit derived from a sojourn on the ship. Thus, while in many instances proving a valuable aid to the efforts of the family physician, these "fresh air baths," as the visit to the hopital-ship may

properly be termed, have undoubtedly hastened convalescence and counteracted the morbid influences extant in the city during the hot season. It may here be stated that this institution, whose privileges were free to all, was maintained solely by charitable contributions, and it is alone due to the general depression in trade that the period of its usefulness, to the regret of its hearty supporters and numerous friends, could not be extended over a greater length of time. But it will be seen by the figures below, that the attendance during its existence of six weeks was, nevertheless, quite large.

There attended during the season — 2,234 adults, 3,947 children—total, 6,190. Average for each day, 206¼.

The thermometer ranged throughout the season on board the ship, as follows:

The indications taken down at 10, 12, 2 and 4 o'clock show the average for each day.

July 16th	78°	Aug. 2d	76°
" 17th	82°	" 3d	75°
" 18th	79°	" 6th	77°
" 19th	66°	" 7th	80°
" 20th	58°	" 8th	79°
" 23rd	76°	" 9th	76°
" 24th	81°	" 10th	77°
" 25th	84°	" 13th	70°
" 26th	76°	" 14th	70°
" 27th	80°	" 15th	71°
" 30th	77°	" 16th	77°
" 31st	80°	" 17th	79°
Aug. 1st	80°		

Summary.

I. Dermatology and Syphilis.

Psoriasis of the Hairy Scalp.— Lailler. (*La France Médicale.* Aug. 29, 1877. P. 546. No. 69.—Psoriasis occurring upon the scalp is characterized by the occurrence of patches of limited contour, clearly defined, and not discharging, as a rule, unless scratching has been induced by itching. The scalp is thickened, and the scales are dull and white in color and very adherent. In the large majority of cases there is no alopecia; the eruption often extends to the forehead, and sometimes to the ears.

Psoriasis of the scalp may be confounded with eczema, but in the latter disease, the eruption is more diffused, and the discharge is abundant. When eczema is in the pityriasic stage, the diagnosis must be established with caution. Apart from the aspect of the scaliness (in addition to other points of distinction which are to be remembered) it must be admitted that in certain cases it is difficult to pronounce as to the disease. The elbows and knees should be carefully inspected, and the diagnosis of psoriasis always be established, if in these localities are a few small patches to be discovered covered with white, dry and nacreous scales.

Impetigo can readily be distinguished from psoriasis by the color and character of its crusts, which are more elevated, yellowish and less dry. The presence of pustules is also significant.

As regards syphilis, when the crusts fall, ulcerations become visible, which are followed by cicatrices and alopecia.

When favus is distinctly present, there is no need of doubt, as the presence of the favus crusts is sufficient to clear up the case. But when the latter are absent, one might be disposed to call the disease psoriasis. In such cases, it should be re-

membered that the favus crusts are yellowish, the patch is more clearly defined and more reddened, the hairs are scanty, decolorized and rendered more like lanugo; cicatricial patches can often be seen.

In pityriasis, the eruption is diffused, does not present the elevated patches of psoriasis, the scalp is not thickened, and the scales are fine and furfuraceous.

PITYRIASIS RUBRA UNIVERSALIS. — Dr. Hans Hebra.— *Vierteljahresschr. f. Dermatol. & Syph.* III., 4).—In July, 1873, an Italian, aged 38 years, was admitted to the Vienna hospital, with pityriasis rubra universalis. He remained there three years and six months, and during this time, he was subjected to a number of therapeutic experiments, none of which, however, could make the slightest impression on the cutaneous disease.

When eight years old, the patient had the small-pox, after which his skin would always become exceedingly red in a warm temperature, and be very livid in cold air; it has never since been normal, but gradually acquired a deep red hue. Yet he was robust and could work, until two years previous to admission to the hospital. At that time he had to stop work, because the tension of the skin, which seemed contracted, impeded the free motions of the limbs. About that time he noticed the first formation of scales on his legs; eight months later, the whole body was covered with epidermic scales, and the hair of the scalp, whiskers and the pubes fell out. On admission, this was the patient's condition; the integument of the whole body was exceedingly tight, partly red, partly livid, the epidermis shedding in larger and smaller scales, in some places matted together, especially on the face. Both lower lids were everted by the shrinkage of the facial skin. Face and scalp were absolutely bald, and all over the body the growth of hair is greatly reduced. Patient is emaciated and feeble, though his appetite, digestion and sleep are good.

The only change which occurred in the patient's external appearance, while in the hospital, was a progressive discolora-

tion of the skin, the red color passing over into a brown red tint, and an ultimate total alopecia.

In March, 1874, while the patient was laboring under an acute pneumonia, his integument improved remarkably; but as soon as he felt better, the cutaneous affection became again aggravated. He finally died of pulmonary and visceral tuberculosis, March 2, 1876, having spent 1,324 days in the hospital. During this time, he was the object of many experiments. Each remedy was tried one hundred days, unless an aggravation of the disease necessitated its entire discontinuance. Externally were used cod-liver oil, warm baths, benzoin, rubber cloth, ung. hydr. ox. albi. and ung. diachyli. The use of benzoin had to be stopped after three weeks, because it increased the dryness and tension of the skin to an unbearable degree. The other remedies had a soothing influence, making the skin softer and more pliable, bnt that was all. On the hyperæmia and desquamation their effect was nil.

Shortly after his admission the patient was dosed with arsenic. Taking one pill, containing 1-10 grain arsenic, three times daily, he swallowed 2,000 pills, or 200 grains of arsenic, in the year 1872, and two years later he went through the same course of treatment, so that in all he took 4000 *pills containing* 400 *grains of arsenic.* His appetite, digestion, and sleep were not disturbed by this treatment, but the pityriasis was not affected by it.

The autopsy confirmed the diagnosis of pulmonary and intestinal tuberculosis, but as to the cutaneous affection, it did not clear up its mysterious character.

The microscopic examination of pieces of the integument showed a chronic inflammatory infiltration of the skin. All its structures were infiltrated with cells in a state of rapid generation. Immediately under the very thick epidermis this proliferation was at its height ; no sweat-gland or hair follicle could be detected in all the preparations. The whole picture gave the impression of a recent scar covered by epidermis.

White Sand for Skin Diseases.—L. Ellinger. (*Wiener Med. Wochenschr.* 1876, No. 45.)—Acne, comedones, acne

rosacea, freckles, prurigo, and other cutaneous diseases are treated by E. with fine white sand, such as is used for scrubbing floors. The sand must be of the right fineness, and not commingled with any coarse grains, nor too much dust. In facial eruptions the skin is washed with soap and water and kept constantly moistened for half an hour; then the affected spots are scrubbed with the moist sand, and the skin cleaned off again with a sponge or a brush. This procedure is repeated every evening.

In circumscribed cutaneous affections of the extremities, or the trunk, the affected part may be wrapped up in water dressing over night, the scrubbing to be done in the morning. If the disease extends over a larger surface, a full bath of one hour must precede the use of the sand.

The writer has been greatly pleased with the results of this treatment, the more so as he did not make any change in the patients' mode of living nor administer any medicine. He considers this method superior to the usual treatment of chronic skin diseases (with soft soap, tar, carbolic acid, etc.,) inasmuch as it has no disagreeable odor; does not keep the patient from business, and is a cheap and speedy cure.

Effect of Water on the Skin in Health and Disease.—Prof. Hebra.—(*Wiener Med. Worchenschr.* No. 132, 1877.) Prof. H., summing up his experience of the effect of the application of water upon the skin, arrives at the following conclusions: water exercises upon the skin a considerable degree of irritation, which may produce morbid symptoms, but also remove existing anomalies in the cutaneous tissues.

It is not the temperature but the macerating and irritating property of the water, that plays the principal part in its employment. As to the temperature of fomentations, ablutions, and baths, this should always be regulated by the feelings of the patient.

Ablutions of the whole body, or full baths—warm or cold—are entirely ineffective as a prophylactic measure against the outbreak of diseases of internal organs, but they often create diseases of the integument.

Baths taken for the treatment of cutaneous diseases must

always be of a prolonged duration, in order to be useful; they should never be shorter than one hour at least; and warm baths may be continued without harm uninterruptedly day and night during several months.

Arterial Lesions Produced by Syphilis.—Lancereaux. (*Le Progrès Med., Sept.* 1, 1877, *No.* 35, *p.* 676).—Such lesions are much more common than is generally believed to be the case, and they present the peculiarity of affecting especially the encephalic arteries. The sites of predilection are the vertebral arteries, the basilar axis, and the sylvian arteries, and the anatomical feature of these syphilitic alterations, is their circumscription. Thus the islets of arteritis scarcely measure more than one to ten centimetres in length, and rarely attain that dimension. The commencement of the process is in the internal tunic of the arteries, non-vascular tissue. There a slight elevation occurs, a species of pustule forms like the primary patch of atheroma. When these little tumors open into the lumen of the vessel, cavities result which become small aneurisms. (Several plates portraying these lesions were exhibited to the Medical Section of the *Association francaise pour l'avancement des Sciences* by M. Lancereaux.)

There are cases where these aneurisms undergo a species of development; in others, a real arterial obliteration occurs. How are these lesions to be distinguished from atheroma, which they so much resemble? Several points of distinction are given. 1. The subject is syphilitic. 2. Atheroma is specially developed in the large arteries, the aorta, the splenic mesenteric and renal arteries, while the alterations produced by syphilitic arteritis affect chiefly the arteries of the encephalon. 3. The subject is, as a rule, young, while atheroma is a disease of the aged. 4. Finally, it is not rare to note a certain degree of symmetry in the lesions. The author concludes with a study of the symptoms of syphilitic arteritis, and the means by which it can be clinically recognized from atheroma and embolism. In embolism the phenomena are immediate; in syphilitic arteritis they are slow of development and preceded by prodromata, cephalalgia and insomnia. These phenomena, it is true, also accompany atheroma, but here the age

of the patient is an aid in coming to a decision. Since atheroma is a disease of the aged, and syphilitic arteritis of the young, it becomes highly probable that when the encephalic arteries are affected with atheroma, those of the limbs will be also. Lancereaux claims that he has made a diagnosis of syphilitic arteritis in the living by these symptoms alone. The disorder is grave, the prognosis serious. In the emergency no delay should be had: large doses of iodide of potassium and abundant mercurial inunctions should be employed.

THE ABORTIVE TREATMENT OF SYPHILIS.—G. E. Weisflog. (*Virchow's Arch. Bd. 69; Allg. Med. Centralztg*).—A few years ago, W. discovered the remarkable fact that a watery solution of the hydrargyrum nitricum oxydulatum injected under the skin never causes suppuration unless the tissues are in an inflamed state; but where the tissues are in a state of irritation or inflammation, an abscess will always follow such hypodermic injection. This property of the hydrarg. nitric. oxydulatum can be successfully employed to check the propagation of the syphilitic virus on its way from the original primary sore to the inguinal glands. In all suspicious cases, therefore, he begins the local treatment with an hypodermic injection into the region between the genitals and the inguinal glands. If these, or the lymphatic vessels leading to them, are not already in a state of irritation or inflammation, no suppuration will take place; nevertheless no constitutional syphilis will follow, provided that the subcutaneous injections be repeated every tenth day until the primary ulcer is perfectly cured and its induration completely removed. But if at the time the injection is made, the lymphatic vessels or glands are already in a state of irritation or inflammation, an abscess will be formed whose contents have a characteristic chocolate color. These abscesses very seldom give rise to any violent symptoms, and heal very quickly. They have never been followed by constitutional syphilis.

He has practiced this abortive treatment the past five years, and from 1820 to 1872 treated 32 cases of undoubted indurated chancre; the injections caused the formation of an abscess on

both sides in 14 cases, and on one side in six cases. Though at that time he felt positively certain that his patients had nothing to apprehend in the future, he has tried, within the last six months, to ascertain, by letter or personal interview, whether the expectations had been verified. He obtained news from 28 former patients—they all remained free from any affection which could be recognized as a sequela of the local infection; twelve of them had married, and their offspring did not show any symptoms of inherited syphilis.

Although the author is willing to admit that there is no conclusive proof in so small a number of cases, he is confident that a conscientious trial by others will confirm his experience. Mercury is most efficient as an anti-syphilitic, if brought in direct contact with the virus in the affected tissues; and the hypodermic injection is the simplest method of saturating with the metal those tissues which the syphilitic virus must pass, on its way from the chancre to the glands. It is very probable, therefore, that other remedies known to antagonize the virus of the primary ulcer may be employed for the hypodermic treatment with success; but the author had no occasion for experimenting on this point, inasmuch as the watery solution of the hydrarg. nitric. oxydulatum possessed every property that could be desired for the purpose. It is a mild and durable solution.

Syphilis Treated by Subcutaneous Injections of Calomel. —Kœlliker. (*Centralbl. f. Chir.* 1877, *p.* 97).—During 1875 and 1876 the syphilitic patients in the hospital at Wurzburg were treated by hypodermic injections of calomel (3,0) suspended in glycerine (30,0). The dose of calomel injected was 0,05 for an adult, and 0,025 for children. The injections, made with an ordinary hypodermic syringe, were repeated every tenth day at first; later, every fifth day. The mode of treatment is easy, does not disturb the nutrition of the patient, and permits of the dose of mercury administered being accurately measured. But it shares with other hypodermic methods the unpleasant feature of the very frequent occurrence of abscesses at the punctures.

II. Therapeutics.

On the State of Therapeutics in Tetanus.—(*Practitioner*, Aug. 1877.) The ancient treatment of tetanus was only palliative, and it was unsuccessful. Modern medicine is armed with a sheaf of weapons which the ancients did not possess; and although yet in despair for a specific, it has so far arrived at such complete alleviation, as often to bring cure with it. A history of the success and failure of the drugs now in use is herein given, in the belief that such a summary makes an appeal to pathology to throw fresh light on the nature of this disease.

Chloroform has had extended trial. Its effects at first sight are most brilliant and satisfactory, nor need it always, in order to relieve spasm, be pushed to narcotism. Great amounts have been used in protracted administration. Simpson narcotized a child for thirteen consecutive days, using ℥100 with success. But the general result is, that while all the fatal symptoms disappear upon the inhalation of chloroform, they return at its removal with unabated violence, and the disease then comes to fatal conclusion without delay. Dr. Panthel, of Limburg, reports experience with chloroform as bearing out this statement. Chloroform is now rarely administered in tetanus.

Chloral has been used in innumerable cases. It is given in large doses, and may be given without fear. A successful case is reported (1875), the daily dose having been 155 grains; and another, a child of twelve and a half years, who took more than 200 grains a day. Dr. Ballantyne, of Dalkeith, gave ℥iij in twenty-four hours, and ℥vjss in three weeks with success. Other and similar cases are well known. Unsuccessful ones were reported in 1874. Alphonse Deu (1875), in a traumatic case, gave as much as 150 grains a day without good result. Chloral was injected into the veins by Dr. Oré (1872), who, though unsuccessful, vaunted his method. It was also tried by Cruveilhier (1874), who also failed, and recommended that a solution, containing one-fifth, in place of one-third, should be used. Lannelongue (1874), using one-fifth, met with same result, and in the *post-mortem* examination found thromboses in

the injected veins, and clots in the right heart. Dr. Oré's method was denounced in the Medical Theatre, at Paris (1874), and finally died in the same year before the Surgical Society of Paris, defended by its author to the last. A strength exceeding one-third for subcutaneous injections, injures the skin.

Calabar bean has a high and well deserved reputation. Eibert (1873) pretends that of opium, chloroform, chloral, curare, and Calabar bean, the latter is the only one that acts satisfactorily on the spinal cord. He recommends either previous narcotism by chloral, or the simultaneous administration of atropine, so that both of these combinations have probably been tried. Holthouse (1864) reported two cases, one successful. He used three grains of the extract every two hours, and once four and a half grains in one dose. Maunder added two unsuccessful cases. Dr. Eeben Watson (1867) reported two traumatic cases which recovered. He had given, by accident, nine grains in as many hours. Later he reported six of eight cases successful.

Mr. Ashdown (1868) reported a case in which the drug seemed to fail; and Professor Spence (1875) reported another unsuccessful case, in which a boy of eighteen took twenty-two grains of the extract in three and a half days, and died on the fourth day. Dr. Dickenson (1876) lost a case after having administered subcutaneously seven grains of the extract in the course of an afternoon, without cessation of the spasm being procured. He reports also two successful cases, one of an idiopathic and the other a protracted nature. The drug has the effect of controlling the spasms, and lowering the temperature. If withheld, the paroxysms return; if pressed, it is dangerous. It is recommended to be used hypodermically in doses of not less than one-third grain of the extract every two hours. It is thought by some to dilate the pupil at first, also, as will curare, to produce spasm.

Opium, combined with chloral, has been successful. Delsol (1874) reports three cases out of four saved by this plan; but in most cases, where this combination has been used, the

chloral received more than half the merit of the cure. Alcoholic cases have been successfully treated by opium alone.

Nitrite of amyl has been tried and failed.

Bromide of potassium, combined with chloral, was used successfully by Drs. Panthel and Carruthers (1874); but the chloral was given in large doses. Bromide of potassium alone has had doubtful success.

Conium has had no flattering result. The cases in which it has seemed successful have been slight ones. Of aconite, some very remarkable results have been given. It was first used in 1846 by Mr. Page. The case was traumatic, and there was a remission of all symptoms after a three minim dose, then recurrence of symptoms, and with the repetition of the medicine, chilliness, cold skin, and clammy sweat, pulse 120, weak and intermittent. Antidotes used were wine and opium. The effects of the drug constitue in themselves a new danger to be met. Curare was first used in Italy by Vella in 1859. It was unsuccessful in his hands. But Cassaignac, in the same year, used it successfully. Its use, however, has passed into disrepute. Belladonna has met with some success. Benoit (1860) failed with it. On the other hand, Peschaux, in the same year, reported a successful case to the Surgical Society of Paris, having injected a solution of $\frac{1}{100}$ of atropine into different parts of the body. Fournier (1860) met with similar success. Strychnia increases, as one would suppose, the symptoms of tetanus. For cannabis Indica no special action has been made out. It has been tried, and failed.

Neurotomy, tenotomy, and amputation are beyond the scope of this paper.

For cold applications to the spine, sufficient material is wanting.

Carpenter (1860) states (reference not verified) that he cured sixteen out of seventeen cases by this plan. The ether-spray to the back has been reported of use.

It is to be hoped that some combination of these agents may be indicated, which will perform what each one of them singly has been found unable to accomplish.

VIBURNUM PRUNIFOLIUM (*Black Haw*).—E. W. Jenks, M. D. (*Gynæcological Transactions*, 1876.) This remedy, used by the writer almost daily for several years, warrants him in speakitg confidently in regard to results obtained from its use. Its most frequent use has been as a prophylactic against abortion. Of course the remedy is worthless when the abortion has already begun by detachment of the ovum. Where the habit of abortion has been formed, the viburnum may be given in the form of the fluid extract from a half teaspoonful to a teaspoonful, four times a day, beginning two days before the regular menstrual date, and continuing it two days longer than the usual menstrual flow. In dysmenorrhœa with profuse menstruation and pain, except when the pain is due to stenosis or mechanical destruction, viburnum affords the patient great relief. The remedy should be given for several days in advance of the period as well as during the time of the flow.

In spasmodic or neuralgic dysmenorrhœa, it is not sufficient alone to give relief, but may be given with advantage combined with sedatives and antispasmodic remedies, such as cannabis Indica, camphor, hyoscyamus, and conium. In that form of dysmenorrhœa with menorrhagia, caused by fibroid growths, it has been given in combination with ergot, with gratifying results. The writer would designate viburnum prunifolium as a uterine sedative, whose action is as pronounced as is that of ergot in causing uterine contraction.

The form of the viburnum used is the fluid extract made from the bark of the root and bark of young shrubs, and newly grown twigs. The dose is a half a drachm to a drachm, repeated every two to six hours.

A NEW TEST FOR BILE-PIGMENT.—Dr. Waller G. Smith. —(*London Lancet*, July).—In a recent paper on the value of tincture of iodine as a test for bile-pigment in the urine, Dr. S. asserts that the value and delicacy of the nitric acid test is not so great as is desirable, and claims for tincture of iodine several advantages. It is easily procured, is not corrosive, the color produced is definite and persistent, and for delicacy it equals nitric acid. The idea is not new, it having been

published in a French journal several years ago. The best method of procedure is to place about a drachm of the urine in a test-tube, and then to allow one or two drops of tincture of iodine (B. P.) to trickle down the side of the tube, held nearly horizontally, so that the two fluids may touch, but not mix. If bile pigment be present, a fine green color will almost immediately be developed below the red layer of iodine tincture.

When the test-tube is held against a white surface, three zones of color are distinctly seen; viz., the red iodine layer, the yellow stratum of urine, and the green color between the two. The test succeeds better by floatation than by mixing the fluids, and the green color will persist sometimes for days. If the urine is very dark in color, it should be first diluted with water.

Heat speedily changes the color from green to brown.

Fetid Feet.—As a remedy for this noisome affection Dr. Rumbold recommends bathing the feet in warm water for fifteen minutes just before going to bed. The water should be kept as warm as can be borne, by the addition at intervals of boiling hot water. After the feet are dried and thoroughly rubbed with a coarse towel, an ointment composed of salicylic acid and bromide of potassium, each five grains to the ounce of vaseline, should be applied with considerable friction. Then the feet should be covered with a pair of cotton stockings well warmed.

In an article in the Revue de Thérapeutique, it is stated that an immediate remedy is found in washing the feet with a solution (1 in 100) of chloral and keeping them enveloped in compresses wetted with the same solution. Results as satisfactory, Dr. Burdon has claimed to have been obtained by the employment of a solution (commencing with 3 in 1,000) of the permanganate of potash. Dr. Berthold also indicates an efficacious method which is less troublesome than that of bathing with solutions. It consists in powdering the interior of the patient's socks with a powder composed of one part of

salicylic acid and five of starch. This is, too, an excellent mode of treating the local sweating which in fat persons takes place between the scrotum and the thighs, and if not arrested leads to a troublesome eczema and its accompanying pruritus.

III. Practical Medicine.

The Tenacity of the Life of Tape-worms.—Prof. Edward Perroneito.—(*The Boston Medical and Surgical Journal*, September 13, 1877.) In order to decide the important question of the tenacity of life of tape-worms and their larval forms, Prof. Perroneito made a long series of experiments and observations on *cysticercus cellulosæ*, and was enabled to ascertain exactly the lowest temperature requisite to insure the death of cysticerci and other animal parasites. In carrying on these investigations,he employed Schultze's heating table with neutral tincture of carmine and hæmatoxiline. His method depends (a) on the fact that a cysticercus keeps moving actively about while the temperature of the fluid in which it is placed is gradually raised; if one of these worms freshly prepared be placed in pure water, or in a weak solution of common salt, which is then gradually heated up to the temperature of warm-blooded animals, or still higher, the parasite twists and turns around with considerable activity, using its suckers and proboscis as organs of locomotion; (b) on the greater readiness with which dead tissues are stained by coloring fluids than are the same tissues during life. Experiments were made to ascertain the value of these two means of diagnosis above described. If the cysticercus freshly taken from a pig be prepared in the manner just mentioned, placed on a Schultze's warming slide and examined under the microscope, it was found that it began to move in most cases when the temperature reached 30° or 35° C. As the temperature rose still higher, the activity of the animal increased, especially while passing from 38° to 49° C. As the temperature gradually increased, the movements of cystic-

ercus celluosæ cease occasionally at 45°—46° C, sometimes at 47°, more frequently at 48° C, and out of over fifty experiments in only one case did the cysticercus keep up its motions beyond 49°, ceasing then, however, at 50° C.

As soon as its movements end the parasite is dead, and can not be restored by again lowering the temperature to that of the surrounding air and raising it a second time. At none of the intermediate temperatures does the cysticercus show the least signs of life. But a more convincing proof of the death of the parasite is obtained from the use of staining fluids, which color the *dead*, but not the living tissues of tape-worms.

A living cysticercus with its head everted may be put in neutral tincture of carmine, or in hæmatoxiline for from two to twelve hours or more without being colored; the staining begins only when the cysticercus dies. Therefore if the cysticercus is first brought to a temperature high enough to kill it, that is 50° C, and then left in one of the above mentioned tinctures, it colors intensely in less than three-quarters of an hour.

The staining begins at the head and proceeds towards the extremities of the caudal cyst. The head colors more deeply and rapidly than the neck, on account of the calcareous bodies which are less numerous in the remaining parts of the body. If a cysticercus from the pig be brought gradually to a temperature of 50° C, and then swallowed alone, or with butter or a crumb of bread, it never produces a tænia.

Some courageous students who volunteered to try the experiment did so without evil result. Prof. Perroneito's investigations were repeated upon other forms of worms, and the results were always the same. The cysticercus of the pig can seldom survive a temperature of 49° C, and exposure to the temperature of 50° C, for more than a minute leads to its death. The trichina spiralis, either free or incysted, as found by several experiments always died at 48° C. These experiments have a great scientific and practical value, assuring on the one hand the highest temperature which cysticercus trichina and other similar parasites can endure. The tenacity of life generally attributed to the helminths and larvæ of like forms is,

therefore, much less than usually supposed. These experiments also show the harmlessness of flesh infested by these parasites, when it has once been raised to a temperature above 50° C, although it may remain there not longer than five minutes.

IV. Surgery.

About Shock, &c.—Nussbaum.—(*Bair. Ærztl. Intelligenz-Blatt*, 1877, No. 11, p. 107.) Many hitherto mysterious cases of collapse after operations can find a satisfactory explanation in one or the other of the following accidents:

(1.) *Acute Sepsis.* The application of septic fluids to a large and rapidly absorbing surface. Ovariotomy and various experiments prove this.

(2.) *Acute Anæmia.* After great loss of blood, particularly in previously anæmic persons and old people.

(3.) *Fat Embolism.* Particularly of the capillaries of the lungs after extreme comminuted fractures. Death often occurs in very robust individuals after this accident. It is ushered in with great dyspnœa. In all operations in the abdominal cavity, great danger is to be anticipated from rapid cooling of the peritoneum.

To prevent acute sepsis, we must employ sufficient antiseptic measures. By warmth and great care in our operations, we must prevent any great decrease of temperature in the peritoneum. As an illustration of what he means, Nussbaum relates a case of internal strangulation of the intestines. The operating-room, the antiseptic solution, and all cloths used, were made warm. The patient was wrapped up in warmed clothes. The strangulation was removed with the least possible exposure of the intestines. The man recovered rapidly and well.

Nussbaum thinks that by using the above precautions, and what we have already learnt of abdominal operations, it would be safe to operate from the abdominal cavity for radical cure of hernia.

ANNOUNCEMENTS FOR THE MONTH.

SOCIETY MEETINGS.

Chicago Medical Society—Mondays, Oct. 1 and 15.
Chicago Society of Physicians and Surgeons—Mondays, Oct. 8 and 22.

CLINICS.

MONDAY.

Eye and Ear Infirmary—2 to 4 P. M., by Prof. Holmes and Dr. Hotz.
Mercy Hospital—2 to 3 P. M. Surgical, by Prof. Andrews.
Rush Medical College—1:30 P. M. Medical, by Dr. Bridge.
County Hospital—8 P. M. Necropsy, by Dr. Danforth.

TUESDAY.

County Hospital—1:30 P. M. Medical, by Prof. Bevan; 2:30 P. M. Surgical, by Dr. Bogue.
Mercy Hospital—2 P. M. Medical, by Prof. Hollister.
Eye and Ear Infirmary—2 P. M. Prof. Jones.

WEDNESDAY.

County Hospital—1:30 P. M. Gynecological, by Prof. Fitch; 2:30 P. M. Ophthalmological, by Dr. Montgomery.
Mercy Hospital—2 P. M. Eye and Ear, by Prof. Jones.
Rush Medical College—4 P. M. Diseases of the Chest, by Prof. Ross.

THURSDAY.

Mercy Hospital—2 P. M. Medical, by Prof. Davis.
Rush Medical College—1:30 P. M. Neurological, by Prof. Lyman.
Eye and Ear Infirmary—2 to 4 P. M. Operations, by Prof. Holmes and Dr. Hotz.

FRIDAY.

Mercy Hospital—2 P. M. Medical, by Prof. Davis.
County Hospital—1:30 P. M. Medical, by Prof. Ross; 2:30 P. M., Surgical, by Prof. Gunn.

SATURDAY.

Rush Medical College—2 P. M. Surgical, by Prof. Gunn.
Chicago Medical College—2 P. M. Surgical, by Prof. Andrews and Isham; 3 P. M., Diseases of Chest, by Prof. Johnson.

Special Clinics daily, from 2 to 4 P. M., at the South Side Dispensary, and at the Central Free Dispensary.

For schedule of lectures at the colleges, apply to the college janitors.